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**Collaboration across New Zealand rural primary schools:  
A virtual learning perspective**

A thesis  
submitted in partial fulfilment  
of the requirements for the degree  
of  
**Master of Education**  
at  
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by  
**Rachel Whalley**



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## **Abstract**

The purpose of this thesis is to examine challenges faced by students and teachers at small rural schools and explore how these may be alleviated by collaborative practice between schools in virtual learning environments. The design of this research is situated within an interpretivist framework and influenced by critical theory, as my research question seeks solutions to challenges that small rural schools face. Research participants were teaching principals selected from eight small rural New Zealand primary schools who were all active in Virtual Learning Network (VLN) Primary School online programmes, and so had current experience of collaborating, and teaching and learning online. Participants took part in focus group interviews, with two being interviewed individually a second time. A grounded theory method of inductive analysis was used throughout the research process to generate findings from the data.

I found that there are many challenges in being a principal in a small rural school in New Zealand, but when principals work collaboratively across schools they can relieve some of those challenges and provide benefits for their students and themselves. Challenges for principals of small rural primary schools were identified as staffing difficulties, high workload, lack of time and access to professional learning and development, resources and support. These challenges were often compounded due to these schools being relatively small and geographically isolated. The participant's' experience of collaborating online highlighted a wide range of benefits for both themselves and their students, in providing access to a wider curriculum, developing digital fluency, reducing professional isolation and relieving workload.

Throughout this study the unique nature of rural education was highlighted, with rural schools being acknowledged as providing a vital role in strengthening rural communities. Recommendations are made to schools on how they can move towards learning in a collaborative online environment; and to government on how they can develop policy and provide resourcing to support small rural primary schools. With fast reliable internet, the small rural school that is open, networked and collaborative

can increase its capacity to provide learning opportunities for both students and teachers.

**Key Words:** rural education, rural communities, rural principals, teaching principals, collaboration, virtual learning, online learning, blended learning, education policy, schooling, school resourcing, New Zealand education, future focused, professional learning, school networks, communities of learning, kāhui ako, communities of online learning, CoOLs, internet, digital divide.

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# **Chapter One: Introduction**

## **1.1 Introduction**

This chapter provides background on my professional experience and why I chose to undertake this study on the challenges of rural New Zealand primary schools and the opportunities provided to them by online collaboration. I describe the educational context and rationale of my research, raise key aims and questions, and provide an overview of the chapters in this thesis.

## **1.2 My interest in this research**

I graduated from one of the first fully online Bachelor of Teaching degree programmes through Massey University in 1999. At that time, as a mother of three young children, there was no possibility of my attending university in a town several hours away from my home without the opportunity to learn online. This experience afforded to me by online learning was life changing and sparked my professional pathway and interest in educational technology and online learning that continues to this day. As is common for many teachers, I am in this profession to make a difference for learners, and I could see from my own experience that online learning has the potential to enable equity and access to learning that all students could benefit from.

Through my work as an ICTPD facilitator in the BardWired cluster of central and eastern Taranaki schools I had my first in-depth experience of working with rural schools. Our schools collaborated closely through the ICTPD project with professional learning opportunities for teachers and online activities for students such as writer's blogs, online games and challenges, and skype connections with other rural and remote schools. At that time, over a decade ago, schools were under threat from government policy of small schools' closures and mergers. Within three years, five of our cluster schools were closed - Tahora, Matau, Douglas, Stanley Road, and Mahoe schools. I had observed how vulnerable small schools were to government policy, and changing rural demographics, and I witnessed the

many challenges the principals in these small schools faced. I also saw that when principals collaborated they were able to support each other professionally and come up with innovative approaches to learning across their cluster of schools. I felt that the creative use of technologies was providing new ways of learning for students and that small rural schools who were working in relative isolation seemed to have the most to gain from this.

I have been ePrincipal of the Virtual Learning Network (VLN) Primary School since 2010 and was previously ePrincipal of TaraNet, a Taranaki secondary schools VLN cluster. Through these years of leading school clusters, where students and teachers learn online together, I have had first-hand experience of the challenges and benefits of online learning. I have come to understand that schools must work closely together to enable these opportunities for their students, that formal structures and supports need to be developed, and that resourcing is necessary to ensure sustainability of these initiatives in schools. Therefore, I come to this research with considerable 'insider' experience of what it is like to collaborate online across schools.

### **1.3 Background**

This research has been undertaken within the context of the Virtual Learning Network (VLN) Primary School network within which I work, and with the principals who participate in VLN Primary programmes and projects. The VLN Primary provides professional development for teachers, student learning support, technical support, and logistical coordination of online classes and programmes to schools around New Zealand (VLN Primary School, 2017). Learning is tailored to meet the needs of students, and to make the most of the strengths of the schools. For example, through a reciprocal arrangement, the schools provide teachers in a subject in which they have a high level of expertise. Where it isn't possible for schools to provide a teacher themselves, another teacher is contracted into the VLN Primary, collectively paid for by the schools. Students and teachers use a range of synchronous and asynchronous tools that enable them to communicate and learn online together. Many,

but not all, of the schools participating in the VLN Primary are small rural primary schools. The VLN Primary School is a registered charitable trust governed by its participating schools and supported, in part, by the Ministry of Education (VLN Primary School, 2016). The Rural and Remote Schools Project is one of the projects supported by the VLN Primary School. This project, originally devised by principals and supported by the VLN Primary, has been running for five years with the same core group of principals. This project has an aim to reduce the social isolation of students and teachers in rural and remote schools through regular online collaboration (Roberts, 2014).

## **1.4 Rationale**

Virtual learning, which has been taking place in New Zealand for two decades, was pioneered in our rural schools (Barbour, 2011a; Roberts, 2010; Wenmoth, 1996). Stevens (1996) highlights the changing role of small rural schools in relation to the development of school networks and virtual learning:

Small rural schools in New Zealand are in the forefront of changes in the application of information and communication technologies to teaching and learning. The emergence of rural school electronic networks is an important step towards the development of virtual classes in New Zealand, requiring new ways of organising teaching and learning. It is particularly appropriate to reconsider the pedagogy of the one- and two- teacher school in relation to the emerging virtual class. These small schools could have a new role in the information age and should, accordingly, be repositioned within the national educational system. (p. 93)

Written two decades ago, Ken Steven's words have challenged me to consider how virtual learning in small New Zealand rural schools has evolved over the last twenty years. Through my own experience of working with these types of New Zealand schools I wanted to reveal how rural schools have been leading the way and benefiting from virtual

learning; and to discover to what extent we are seeing new ways of teaching and learning online.

## **1.5 Research aims and questions**

In light of these reflections my research aims to examine how collaborative practice between schools working in virtual learning environments can alleviate the challenges small rural schools face for both students and teachers. I explore how collaborative online learning could enable innovative practice and new ways of thinking about the nature of schooling, while also exploring the challenges and potential pitfalls this may bring to schools.

### **My main research question is:**

What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?

### **Supporting questions:**

- What is the experience of teachers/principals with online collaboration across schools?
- What challenges are faced by principals of small rural schools?
- What are the benefits of being a principal in a small rural school?
- What are principal's beliefs about learning online?
- What are some of the enablers and barriers to collaboration across schools?
- What are some of the enablers and barriers for teaching and learning online?
- How do principals think that teaching and learning online may change the nature of schooling in the future?

## **1.6 Significance of this research**

The findings from this research will assist whānau and communities who have children learning in collaborative online communities to gain a better understanding of their children's online learning experiences. For those whānau and communities whose children are not learning in the virtual

setting, this research may raise awareness of the potential benefits and challenges involved and cause them to consider supporting virtual learning in their own schools.

Schools (teachers, principals and Boards of Trustees), who are involved in collaborative online learning may be interested in the findings of this research for self-review purposes; and schools that are not yet involved may be inspired by the possibilities and wish to learn from the experiences of those who have pioneered the space.

Research findings will inform policy makers on current practice in collaborative online learning across schools and reveal how we can realise the potential benefits of virtual learning for students, teachers and school communities within the New Zealand educational setting. This study aligns with Ministry of Education priorities in relation to collaborative practice and system changes within Communities of Learning or Kāhui Ako, and the current Education Review, Taskforce on Regulations Affecting School Performance (2014). Particularly relevant is the proposed regulatory framework for online learning and the potential formation of Communities of Online Learning (CoOLs) (Ministry of Education, 2016a). This legislation, when enacted, will enable virtual schooling to become part of the schooling system in New Zealand. It also aligns to the Ministry of Education (2016b) priorities as outlined in 'The Four Year Plan 2016 - 2020' for improving student centred pathways and championing 21st century practice in teaching and learning.

## **1.7 Thesis outline**

This chapter has provided background on why I chose to undertake this study, the educational context and rationale of my research, and key questions I set out to examine.

Chapter two reviews the literature under three key areas which are relevant to my research question: rural education, collaborative practice and virtual learning across schools. A scope of the current New Zealand education landscape is included to provide the context in which this study sits.



In chapter three I discuss the research design process and methods I use. I describe my rationale and method for recruiting research participants, the generation and analysis of data, and the quality and validity of data. I also discuss ethical considerations.

Chapter four gives a description of the research participants' backgrounds, reports on the findings elicited from interviews with them, and presents the findings in accordance with the key themes that emerged through analysis of the data.

I discuss and interpret the findings in chapter five and relate them to the key themes. Links are made to relevant literature to confirm or extend on what is already known, while areas of contradiction that stand out for scrutiny are highlighted.

Finally, in chapter six, I conclude with a review of my research, present implications and recommendations for policy makers and practitioners, discuss the limitations of this study, and make recommendations for further research.

## **Chapter Two: Literature Review**

### **2.1 Introduction**

This literature review is organised into three key areas which are relevant to my research question about the challenges faced by small rural schools, and collaborative practice between schools working in virtual learning environments. Therefore, the main areas that I explore in the literature are rural education, collaborative practice, and virtual learning across schools. A scope of the current New Zealand education landscape is included to provide the context in which this study sits.

### **2.2 Rural education in New Zealand**

In this section I synthesise definitions of rurality from the literature as a basis for thinking about small rural schools. I set the focus of my study by describing the characteristics of small rural schools in the New Zealand setting and the important interdependent role they have within their communities. I explore challenges faced by principals of small rural primary schools and some innovative approaches implemented as a counter to these challenges.

#### **2.2.1 Defining rural**

There is much ambiguity in definitions of ruralness (Preston, Jakubiec & Kooymans, 2013; Stelmach, 2011). Perceptions of what is rural are multiple and changing, and based on socially constructed understandings which focus on geography, population, land use, and culture (Stelmach, 2011).

Some argue that definitions of rurality have traditionally been described as oppositional to urban areas, which results in polarisation and comparison between the two (Cloke, 2006; Stelmach, 2011). Instead of this divisive perspective, the concept of rurality “should not be seen in opposition to urban but part of a complex global economic and social network” (Donehower, Hogg & Schnell, 2007, p. xi). To illustrate this example, Statistics New Zealand (2004) defines rural areas on a continuum of greater or lesser urban influence. This has been determined by the number of people who live in the country but work in the town or city, and

in addition the size of the closest urban centre. This type of definition is convenient for ease of collection of statistical data and monitoring of demographics, but it doesn't help provide a picture of what it means to be 'rural'.

Theoretical frameworks that define rurality in terms of space, place and society (Cloke, 2006; Halfacree, 2006) are more suited to this study as they support a descriptive definition that is more reflective of diverse perspectives of rurality. Cloke (2006) describes characteristics of rural areas using this three-way framework: extensive land use such as agriculture (space), small settlements where there is a strong relationship to the land (place), and a way of life that has a cohesive identity and is intertwined with the landscape (society). These perspectives of thinking about rurality provide a basis on which to explore what is unique about rural schools.

### **2.2.2 Characteristics of small rural schools in New Zealand**

In addition to conflicting views on what constitutes ruralness, Starr and White (2008) assert there are also differing views on what constitutes a small school. The Ministry of Education (2013), in a survey of school ICT infrastructure, profiled small schools as having a student roll of 199 or less, and very small schools as having a roll of less than 100. In these small schools most principals are also teaching principals or sole charge teaching principals. New Zealand schools are graded U1 to U16 according to the number of students they have. The U grading of a school determines principals' salaries and the number of teachers a school can employ, as well as other resources allocated to the school. A principal will be the only teacher at a school, or 'Sole Charge', until the roll exceeds 25 pupils, after which he or she will continue to have a teaching role that reduces depending on the size of the roll and staffing allocation. Many small rural schools are also considered by the Ministry of Education to be isolated and receive targeted funding to assist them with additional resourcing costs. Of the 478 schools receiving targeted isolation funding in 2015, 64% were small primary schools with a roll of less than 100; and for

89 of these schools, isolation funding made up 10% of their operational grant (Ministry of Education, 2016c).

*Table 2.1 Small school demographics 2017*

School Grade	Maximum Roll	Number of Schools	Percentage of Schools
Sole Charge	25	143	6%
U1*	50	223	9%
U2	100	330	13%
U3	150	278	11%
Total Schools		2530	39%

(Data extracted from New Zealand Schools Directory, Ministry of Education, 2017a).

Notes: \* U1 grading includes Sole Charge principals but has been separated out in this comparison.

For the purposes of this study my focus will be on New Zealand Sole Charge to U3 primary schools situated outside of town and city boundaries. These schools best suit the demographic referred to in my introduction, as the small rural school that “could have a new role in the information age and should, accordingly, be repositioned within the national educational system” (Stevens, 2016 p. 93).

### **2.2.3 Rural schools and communities**

In conceptualising rural schools in the wider sense, Green (2015) proposes a threefold framework, similar to that presented in the previous section to describe definitions of rurality, of space, place and scale. This framework gives impetus to the importance of community involvement, rural identity and place-based education as well as social, economic and environmental sustainability. The New Zealand rural school is an integral part of its community (Kearns, Lewis, McCreanor & Witten, 2009; Wright, 2007). Therefore, it is important not to consider schools in isolation. Green (2015) states that:

Thinking beyond the school is crucial, but that does not mean that schooling is now somehow irrelevant, or marginalised. Rather, it is to say that schools are embedded in communities, and potentially integrated with them, as multi-scalar sites of communication and learning, being and becoming. (p. 46)

Corbett (2007) explores identity and social capital of students in rural school settings. He identifies some young people as having “mobility capital” (p. 782), which is the confidence and skills to negotiate various spaces outside of the school and community setting. While some young people possess more “localised capital” (p.783), which is a strong grounding in the local community, with future opportunities that are locally based. This difference in social capital can create tension within rural communities about the purpose and value of education and the relevance of curriculum. Some parts of the community are more outward looking and seek an education that will prepare their children for going out in the world for higher education or wider employment prospects, while others are more inward looking, seeking an education that will prepare their children to remain and take up their place working within their own community.

Barley and Beesley (2007), in their study of successful rural schools, found that schools and their communities were interdependent, with the school as the hub of the community and the community providing support to the school. Families had a high personal investment in the school, as many identified with the school as former students. Close relationships were developed between the principal and community, and high expectations were placed on students to achieve well. Children in small rural schools with supportive communities experienced close relationships with others through learning to get along with a small number of children, and through a safe school environment where everyone knew each other. Children learned valuable life skills of tolerance, negotiation and commitment, and, in the process, forged social connectedness and strengthened communities (Wright, 2007). Rural schools are a popular choice for parents because of their small class sizes, extensive amenities,

family atmosphere, and high expectations for good behaviour, participation and learning achievement for their students (Earl Rinehart, 2017).

Wright (2003) discusses the importance of rural schools developing a local curriculum in partnership with their communities, so that children may have knowledge of their own area, history and environment; community values are preserved; and students potentially have better educational outcomes. Place based education, or local curriculum, has the potential to revitalise rural schooling (Bartholomaeus, 2013; Green, 2015). With this approach students can be given the opportunity to pursue questions relevant to them, while they can develop stronger community ties and an understanding of their local place and of themselves (Bartholomaeus, 2013).

For many students in rural and remote areas, continuing their schooling to high school means they will have to leave their communities to attend boarding school. For some the alternative to leaving is to be home-schooled or enrol in the Correspondence School. This time of transition has been highlighted by rural school principals as an important process for rural children, and one that needs to be carefully prepared for. Students who are well supported by their family and teachers, and are resilient, confident and independent are more likely to make successful transitions to secondary school (Johnson, 2016; Vincent, 2015; Baills & Rossi, 2001).

Rural principals have high expectations placed on them, not only as the leader of the school, but also as a community leader (Earl Rinehart, 2017). In the next section I explore the challenges that principals face in small rural schools.

#### **2.2.4 Challenges for Rural Principals**

Stelmach (2011) raises a range of issues that impact on rural communities and their schools. Out-migration (where families leave the community), gender inequality, poverty, geographical and psychological remoteness all affect schools, resulting in declining enrolment, and difficulty attracting and retaining staffing. There may be differences of opinion between the community and the principal on the value and purpose of education.

Globalisation influences rural communities in both positive and negative ways, either providing regeneration of some communities, or increasing the polarisation between city and country and creating further inequality. Globalisation also influences educational policy, which has a roll down effect on schools and the principals who lead them (Starr & White, 2008).

Starr and White (2008), in their research with principals in Victoria, Australia, found principals of small rural school spend most of their time teaching multi-level classes, with little support for school administration. The tasks required to manage a small school are the same as for larger schools, with no opportunities to delegate to others. "While principals raised many types of challenges, the most commonly raised themes concerned: workload proliferation, educational equity issues... escalating role multiplicity, and school survival" (Starr & White, 2008, p. 3).

Relationships and communication with a wide range of people are described by Earl Rinehart (2017) as being a significant part of a rural principal's role. This was considered significant, not only for the energy in supporting so many different relationships, but in the workload and complexity it contributes to a principal's day through managing so many communications. Preston et al (2013) noted that if principals don't share common social, cultural or ethnic connections with their community, then they could experience levels of mistrust from the community.

Rural schools are often under resourced and have additional pressures unique to their position (McLean, Dixon & Verenikina, 2014), which can result in stress, heavy workload, and strain on family and relationships for principals (Windsor, 2010). This may contribute to the turnover rate of principals that Wylie (2017b) found is higher in small rural schools than other types of schools. Windsor (2010) surveyed and interviewed New Zealand rural school principals during her sabbatical. She found that multi-level teaching and finding a balance between being a principal and being a teacher was the most difficult part of a rural principal's job. Providing for children with special needs was also very challenging, with limited resources and access to specialist services and personnel (Stansfield, 2015). Managing relationships in a small community was a source of

tension for many principals, especially around differences of opinion on how the school is being run. Specialist support and the lack of governance experience was another challenge faced by principals (Stansfield, 2015).

Transience of the community and fluctuating rolls have been identified as a growing problem. Hayward (2008) describes this: "The major worry that affects small school rural principals in NZ are the enrolment numbers in our schools around March and July" (p. 3). Reduced numbers will see a reduction in funding and the potential loss of teaching staff to the school. These fluctuations in student numbers can have a significant impact on the future of a small school, making them vulnerable to closure. In the 1990s, 95 small rural schools were closed, and another 75 schools in the early 2000s, under a process of network reviews. This process, called EDI 'Education Development Initiatives', was a response by the New Zealand government to changing rural demographics, falling school rolls and perceived underperformance in schools. These school closures had a profoundly devastating effect on many rural New Zealand communities (Kearns et al, 2009).

Access to professional learning is considered a significant concern by principals. Access can be limited by the cost of attending professional learning events due to distances to travel and finding relievers (Stansfield, 2015; Wylie, 2017a). Lack of time is often an issue, to attend professional learning, or to reflect on, process and implement new ideas gained from professional learning (Windsor, 2010; Preston et al, 2013). Being a principal in a small rural school can be professionally and socially isolating, with limited opportunities to connect with colleagues for support and sharing of ideas (Earl Rinehart, 2017).

In small rural schools there are concerns that principals have few opportunities to share and compare ideas and practices with other schools, and thus cannot judge the extent of their progress. As one rural principal commented: "It can be scary because how do we know if we are doing the right things?" (Cowie & Hipkins, 2009, p. 20).



Although rural principals and their communities face many challenges, the literature indicates there are a variety of positive experiences in small rural schools. These schools know their children and families very well and have committed teachers and strong community support (Barley & Beesley, 2007; Kearns et al, 2009). In addition, by being an integral part of a small community in some of the most unique settings in New Zealand, there are many rich opportunities generated for place-based pedagogy (Windsor, 2010; Wright, 2007). Stansfield (2015) describes small island schools as having an “abiding sense of place” (p. 5.), and a strong affinity with the environment.

### **2.2.5 Innovative approaches in rural schools**

Rural principals have responded to challenges by seeking innovative approaches to deliver better outcomes for their learners (Starr & White, 2008; Stansfield, 2015). For example, one innovative approach by the Halfmoon Bay School community, when faced with loss of staffing due to a fluctuating roll, was to advertise on Trade Me for families to come to live on the island with free accommodation and job offers (Mcleod, 2015). Along with boosting the school roll which enabled them to maintain their second teaching position, they gained national attention and raised the issue of inequity in staffing formulae for rural schools.

Responding to the challenges of rural schools also necessitates an approach where schools partner with whānau, community organisations and the government to secure better resourcing of both finances and expertise (O’Leary, 2015). However, this approach can bring a different set of challenges such as a loss of autonomy and a change in values (Stelmach, 2011).

Strategies such as working across schools and extensive use of technologies can help principals to counter many of the challenges of professional isolation (Starr & White, 2008; Windsor, 2010; Wright, 2012). In the next two sections I will explore collaboration across schools and the use of technologies in virtual learning.

## **2.3 Collaborative practice**

In this section my focus is on professional practice that supports collaboration across groups of schools and leads to better learning outcomes for students. I look at features of effective collaboration and theory that underpins this.

### **2.3.1 Collaboration - form and function**

Collaboration is one of the leadership practices that can contribute to collective efficacy, which is teachers' collective belief that together they can make a difference to student learning (Donohoo, 2017). Student achievement can be improved when teachers collaborate to overcome challenges (Ronfeldt, Farmer, McQueen & Grissom, 2015; Fullan, 2011). Furthermore, collaboration between schools has the potential to improve equity for students, by increasing the capacity of schools to respond to learner diversity (Ainscow, 2016; Chapman, Chestnutt, Friel, Hall & Lowden, 2016).

Collaboration requires a shared vision and purpose; and clear structures and processes, including time and resources (Taskforce on Regulations Affecting School Performance, 2014; Donohoo, 2017; Rincón-Gallardo & Fullan, 2016). Effective collaboration, through inquiry and group problem solving, avoids the problem of 'group-think', where individuals repeat and reinforce similar view; and seeks to gain deeper understanding rather than perpetuating the status quo (Donohoo, 2017; Rincón-Gallardo & Fullan, 2016).

Collaboration in schools takes place on a continuum from informal meetings to highly structured activities (Taskforce on Regulations Affecting School Performance, 2014). Starr and White (2008) identify several levels of practice across schools: networking, which involves the simple sharing of information; coordination, which is to work together for a common purpose, for example organising a cluster schools sports day; cooperation, which extends on the previous concepts but involves the sharing of resources between schools and-a higher level of trust; and collaboration, which involves all of these concepts but requires everyone to be working

towards building the capacity of the group of schools as a whole, resulting in local trade-offs to achieve a common purpose. Taylor-Patel (2014) stated that “Effective collaboration in education is about leaders being committed to working for all students in all schools, as they do their own” (p. 52).

Collaboration can be differentiated between system based, formal, top-down collaboration and a culture of collaboration that is informal and grassroots driven. Effective school networks need both approaches (Rincón-Gallardo & Fullan, 2016; Taylor-Patel, 2014; Daly, 2010; Feys & Davos, 2016). Grassroots collaboration can be more genuine and effective than mandated collaboration. Yet system-based support is needed to provide the resources and structure that enable schools to collaborate (Taylor-Patel, 2014). Collaboration that is imposed and contrived to achieve system goals was found by Hargreaves and O’Connor (2017) to be harmful, reducing teachers’ motivation to initiate further collaboration. The Taskforce on Regulations Affecting School Performance (2014) states: “Consultation feedback and research agree that forced or mandated clustering is not sustainable. Collaboration should be based on mutual need and benefit” (p. 26).

Duffy and Gallagher (2017), when discussing a Northern Irish collaborative initiative ‘Shared Education’, voiced concerns that the project which had been strongly grass roots driven in the past, might lose its edge for innovation and creativity because its funding and management had been taken over by the government. Daly (2010) contends that formal structures are important for providing policy and structures that support collaboration, challenge teacher norms, and give access to expertise; however, it is important to first understand the informal networks and relationships that exist.

Rincón-Gallardo and Fullan (2016) equate effective networks with collaboration that deepens learning, grows professional capital and is a positive driver for system improvement. They list the features of effective network as:

- focussing on ambitious student learning outcomes linked to effective pedagogy;
- developing strong relationships of trust and internal accountability;
- continuously improving practice and systems through cycles of collaborative inquiry;
- using deliberate leadership and skilled facilitation within flat power structures;
- frequently interacting and learning inwards;
- connecting outwards to learn from others;
- forming new partnership among students, teachers, families, and communities;
- and securing adequate resources to sustain the work (Rincón-Gallardo & Fullan, 2016, p. 10).

### **2.3.2 Collaboration in communities, networks and clusters of schools**

In the context of this research, my focus is on collaborative practice across groups of schools, and not within individual schools. Fullan (2005) espouses the benefits of professional learning communities to foster collaboration and develop the collective capacity of staff to improve student achievement, and he contends that this should be “writ large” (p. 210) to extend across school districts and nationally to build system wide capacity.

Being part of a professional network, cluster or learning community is important for rural principals to not only provide a support network but to build professional knowledge (McLean et al, 2014). NZPF President, Ian Taylor in Education Review (2016), acknowledges collaboration as a long-standing practice of principals and, although for rural principals there are some barriers to participation, an important part of their professional learning and support. Cowie and Hipkins (2009) support this when they say, “Effective leaders are strongly networked, with connections to various groups that provide professional and personal support” (p. 21). Being connected and networked to other professionals is important, but it is just the starting point towards collaborative practice across schools.

### **2.3.3 Theories of networked learning and collaborative practice**

Social connections, shared purpose, strong relationships and capacity building in learning communities are at the heart of successful collaborative practice. McLean et al. (2014) profile Communities of Practice as a theoretical framework for developing professional communities and connectedness for teachers in isolated rural communities. Communities of Practice is a social theory of learning whereby groups of people collectively create knowledge and meaning through a common purpose and shared practice in both formal and informal settings (Wenger, 2008). Owen (2011) states that teachers participating in Communities of Practice can share conversations and practice about learning and teaching and have the support of a professional network.

Collaborative professional networks can build their capacity through developing the social and professional capital of their members. The concept of social capital can be described as the connections between individuals and groups built on relationships, trust, shared norms and reciprocity which provides benefit to the network (Ainscow, 2016; Tokas, 2016). Hargreaves and O'Connor (2017) expand on the concept of social capital, including it within a wider concept of professional capital:

Professional capital is made up of individual human capital, the decisional capital of capacity to make judgments that develops over time, and the social capital of trust, interaction, shared purposes, and collaborative relationships among an occupational community. Social capital is at the heart of professional community – the way that teachers work together as an occupational and social group. (p. 74)

Technology has enabled us to collaborate and learn more easily across networks of schools. Connectivism was proposed by Siemens (2005) as “A Learning Theory for the Digital Age” (p.1). However, while not all would agree it is a learning theory per se, it does provide a useful framework for learning in digital networked communities (Duke, Harper and Johnston, 2011; Harasim, 2014; Kop & Hill, 2008; Starkey, 2012). Within a

connectivist framework knowledge is distributed across networks, and learning is a process of connecting through networks. Nodes on the network can be individuals, communities, organisations or sources of information (Siemens, 2005).

Connectivism can be evidenced in New Zealand by the many schools that have self-organised as networked communities of learners. Networked schools collaborate with other schools, often through virtual learning (Ministry of Education, 2011b). In the next section of this chapter I examine the literature on virtual learning.

## **2.4 Virtual Learning**

In this section I describe definitions of online, blended, distance and virtual learning, and detail virtual learning and the growth of networked communities of schools in the New Zealand educational setting. I then discuss the benefits and challenges of virtual learning and explain how students can be supported to learn in a virtual environment.

### **2.4.1 Defining virtual learning**

Virtual or online learning can mean different things to different people depending on their individual experiences and understandings, and these terms have often been used interchangeably (Barbour, 2014; Whalley, 2016). Research literature abounds with overlapping, inconsistent and confusing terminology, which complicates analysis of this field of education (Guri-Rosenblit, 2005). Furthermore, the area of online and blended learning is complex, involving many different features and models of practice (Cavanaugh, Ferdig & Freidhoff, 2017). Commonly used terms in this field of study are elearning, virtual, online, blended, flexible, open and distance learning.

Distance learning is characterised by the separation of place and or time between teacher and learners and learning resources (Lai, Pratt, & Grant, 2003). Distance learning has evolved over a range of stages that are described as generational, beginning with print-based media and correspondence, moving through to television and radio broadcast, and

continuing to different media, technology, pedagogies and systems of the times (Anderson & Dron, 2011; Bates, 2005; Moore & Kearsley, 2012).

Blended learning has arisen through the convergence of technology and pedagogy of online and distance learning and the developing use of technology within face to face schooling settings (Lai, Pratt & Grant, 2003; Ministry of Education, 2011). Blended learning is characterised by students combining part of their learning online and part in the bricks and mortar school setting, giving them more choice and flexibility in their learning (Barbour, 2015; Staker & Horn, 2012).

Some critics see online learning as students being taught by technology, with no social interactions with teachers or their peers (East, 2016). Those with practical experience in the field of online learning hold a different view. Cavanaugh, Ferdig and Freidhoff (2017) assert that quality online learning involves “high quality and interactive content, teachers with strong and specific pedagogical skills, training for parents and students, and strong mentoring and scaffolding opportunities” (p. 53). Parkes, Gregory, Fletcher, Adlington, and Gromik (2015) note that strategies for successful online learning include providing learning in multiple formats, lots of opportunities to communicate, developing Communities of Practice and networks, creating learning environments that encourage social presence, and access to support. Social presence is defined by Palloff and Pratt (2008) as “the degree to which a person is perceived as ‘real’ in communication that is conducted via the use of some form of media” (p. 30). Social presence, along with teaching presence (the design and facilitation of learning) and cognitive presence (the ability to make meaning) form the Community of Inquiry Framework developed by Garrison, Anderson and Archer (2010), and is considered important in engaging young people in online learning (Borup, West, Graham, & Davies, 2014).

Virtual learning can be broadly defined as learning that is facilitated by a range of online technologies to enable communication and collaboration, where students and teachers are in different physical locations (Bolstad & Lin, 2009). In addition, virtual learning is an important activity in networks

of schools and could, over time, change the nature of schooling (Ministry of Education, 2011b). Barbour, Miron & Huerta (2017) qualify their use of the terminology 'virtual school' to describe supplementary online learning taking place in schools, in comparison with cyber schooling, where children learn fully online in cyber charter schools, and with the term online learning, which is used in more general terms. To be able to understand virtual learning in the New Zealand schooling sector, it is necessary to view its evolution over the last three decades.

#### **2.4.2 A background to virtual learning in New Zealand**

Virtual learning has been taking place in New Zealand schools for more than two decades. Since the early 1990s schools have collaborated to share teachers and resources and provide online classes to each other's students through the internet (Ali, 2017; Powell & Barbour, 2011; Roberts, 2010; Starkey & Stevens, 2007; Stevens, 2011). Clusters of schools began to collaborate to teach online classes using audiographics in 1994. Canterbury area schools initiated Casatech (Langley, 2003; Stevens & Moffatt, 2003; Wenmoth, 1996;); and later TosiTech (Top of the South) was formed (Barbour & Wenmoth, 2013; Roberts 2009). Audiographics required two phone lines, one to provide the audio connection and another to send still images to a computer screen (Ali, 2016; Stevens, 1995). More schools began to work in similar ways, such as Ngata Memorial College, who, in partnership with Te Puni Kōkiri, made these recommendations to the Ministry of Education: that they recognise their pioneering role in telelearning education and support the expansion to other New Zealand schools; that links be expanded to Colleges of Education; that they recognise the Māori cultural context and consult with the broader Māori community; and that they should no longer be considered a small school but be funded as a virtual school (Stevens, 1998). Stevens (1998) differentiated distance education as belonging to an industrial age model and telelearning to the information age. He described a changing educational environment becoming evident in schools, where schools were inter-connected through ICT networks, and using technologies to provide new and better ways of learning.



The KAWM (Kaupapa Ara Whakawhiti Matauranga) network initiative, begun in 2000, enabled several school clusters, consisting of Wharekura, East Coast area schools & Māori boarding schools, to use video conferencing to provide online classes and professional development for teachers (Barbour & Wenmoth, 2013; Roberts, 2009; Waiti, 2005). Evaluation of the KAWM initiative made recommendations that there needed to be: more development in the knowledge and skills appropriate for a learner centred curriculum and teacher pedagogies in the digital age; robust and effective technology infrastructure; and adequate and ongoing funding to support schools to coordinate elearning (Waiti, 2005).

Following on from the KAWM initiative, many more regional clusters formed in quick succession over the decade and became collectively known as the VLN (Virtual Learning Network), until by 2010 over half of New Zealand's Area Schools and Secondary Schools had some students learning online (Powell & Barbour, 2011).

These school networks were developed to meet the needs of small rural schools to enable them to extend the curriculum for their students (Stevens & Moffatt, 2003; Roberts, 2010). Schools were at risk from declining rolls and pressure to retain staff (Arif, 2017); there was dissatisfaction with the Correspondence School, which had traditionally provided courses to rural senior students (Arif, 2017; Langley, 2003; Roberts, 2009); and school leaders were beginning to realise the potential of emerging technologies that would enable schools to collaborate online (Langley, 2003). With telelearning, schools should no longer be considered as small schools when they are open and networked with other schools. This move from closed to open contributed to the sustainability of education in small rural communities (Stevens, 1998; Stevens & Stewart, 2005). Stevens (2010) elaborates on this point when he states, "An increasing number of schools in rural NZ have increased in size in terms of the curriculum they provide both on-site and online" (p 171).

There was little documented about virtual learning at the primary school level until the formal development of the VLN Primary School in 2009. Online learning in New Zealand is mainly provided by the VLN Primary

(Williamson-Leadley & Pratt, 2017). The VLN Primary aims to extend learning opportunities for students by enabling online collaborations between schools (Tolosa, East, Barbour & Owen, 2017; Ministry of Education, 2017b). In 2004 Rick Whalley, then Principal of Pitt Island School in the Chatham Islands, realising how the secondary school sector was making use of virtual learning, looked to collaborate online with other schools in New Zealand (Whalley, 2016). In 2008 Rick led the collaboration of three schools to share online language classes, and a case study was developed (Gibson, 2009) that resulted in the Ministry of Education supporting the fledgling VLN Primary School (Whalley, 2016). Although the VLN Primary School was initiated to support the provision of Years 7 and 8 languages (Owen, 2013), it soon realised the opportunity to widen the range of curriculum choices, to provide a variety of learning experiences in addition to formal classes, and to grow the professional capacity of teachers to better meet the needs of learners and teachers (Barbour, 2011b; Roberts, 2014). There is a small percentage of primary age students enrolling in virtual classes compared with secondary students, but in recent years there has been significant growth (Barbour, 2014, 2015). By 2017 the VLN Primary School had grown to 870 students, a 400% increase in growth over a five-year period (Whalley, 2017).

The development of new technologies and the improvement of broadband services to schools were significant in the growth of virtual learning in New Zealand. Project Probe, initiated in 2002, enabled schools to move from audiographics to video conferencing (Roberts, 2009). More recently, considerable investment by the government in schools' infrastructure, fibre and rural broadband rollouts, and the development of a dedicated managed network for schools providing free, fast internet have enabled all schools to have the technology needed to access virtual learning opportunities (Roberts, 2014). However, statistics from the World Internet Project (Crothers, Smith, Urale & Bell, 2015) indicate there is still a growing digital divide for communities in rural areas.

### **2.4.3 Benefits and challenges of virtual learning**

There are both benefits and challenges for students learning virtually. One New Zealand primary school found their participation in virtual learning related to themes of lifelong learning in a connected world, personalisation of learning for students, and digital citizenship (Ministry of Education, 2017b). Two key areas the school felt needed more attention were making the connection between students' virtual learning and their classroom learning, and providing better support for online learners. Tolosa et al (2017) found that students learning languages online with the VLN Primary were able to access languages that otherwise wouldn't have been available to them, were developing digital literacies and intercultural awareness, and had a very positive attitude to learning languages reinforced through the online environment. However, there were barriers experienced by some students in terms of the technological infrastructure and the time and independent study skills needed outside of online classes to progress their language learning.

Parkes et al. (2015) stated that high attrition rates, lack of support, lack of timely effective feedback, reliability of and access to technology, and digital divide are all issues for online learners and are exacerbated for disadvantaged students. However, Whalley (2016) in his study exploring the factors that affect student success in virtual learning environments, found that school-based student support for learners was critical. To effectively support students learning in virtual environments schools need to:

- ensure that they had policy and procedure in place;
- have systems for keeping track of students learning;
- provide the infrastructure and resources for learning;
- promote a tuakana/teina culture of learning in the school where students support each other;
- have effective communication across the whole school community including whānau;
- support students to reflect on their own learning.

The Learning Communities Online Handbook (Ministry of Education 2011b) was written by New Zealand teachers who were active practitioners in the field of virtual learning. They described wide ranging benefits such as access to greater curriculum choices, access to experts, engagement in collaborative projects and learning that is high interest and relevant to students' interests, extension for gifted and talented students, sharing of resources, provision of professional learning, retention of specialist staff, and retention of students. Thomson (2011) describes the benefits of online learning as allowing flexibility and freedom from the traditional expectations of school, and a personalised learning experience for students which caters for different skill levels and interests, promotes a student-centred pedagogy, provides social benefits through interacting with other students, and encourages students to take responsibility for their own learning.

In addition to the benefits described above, virtual learning in schools has been an impetus for innovation and change in promoting a learner centred pedagogy, collaborative teaching practice, changes to schools' organisation such as timetabling and shared resourcing, changes to teachers' roles, and a teaching and learning environment that is more aligned to a 21st century networked school (Barbour, 2011b; Barbour, Davis & Wenmoth, 2013; Langley, 2003). Virtual learning is credited with creating educationally powerful connections where students can connect to others, in New Zealand or globally, in authentic and relevant learning contexts. In describing the work of the Virtual Learning Network Community, the Ministry of Education (2011a) said, "They have been able to provide their students with opportunities to develop aspects of the key competencies and exercise digital citizenship, and the students are demonstrating improved academic engagement and motivation across the curriculum learning areas" (p.2).

## **2.5 Scoping the changing schooling policyscape**

In exploring virtual learning and collaborative practice in New Zealand rural primary schools, it is important to understand the effect of policy in

the wider educational context. This section gives an overview of schooling policy and initiatives in New Zealand over the last two decades.

### **2.5.1 Tomorrow's schools**

Set against a backdrop of wider economic and political reform of the 1980s, the Education Act of 1989 legislated for a raft of changes that were known as Tomorrow's Schools (Taskforce on Regulations Affecting School Performance, 2014). Schools became self-managing standalone entities, each with their own board of trustees, charter, policies and operational funding. They worked independently of the new Ministry of Education, whose role it was to create policy and provide funding. Other government agencies, such as ERO (the Education Review Office), were created to provide accountability and support for schools. These changes were brought about with the goal of making more schools more efficient, accountable to their communities (Earl Rinehart, 2017) and government, more flexible and responsive, and less bureaucratic. There was an assumption that these changes would lead to better teaching and learning through providing more choice for parents and competition between schools (Earl Rinehart, 2017; Langley, 2009; Wylie, 2012).

Tomorrow's Schools presented many challenges to schools. Bureaucracy was not reduced as intended, but shifted to the individual school environment, where more compliance issues were created through interactions with and accountability to several new government agencies. Principals' workloads grew tremendously through the introduction of Tomorrow's Schools (Earl Rinehart, 2017; Wylie, 2013); and with the introduction of the new curriculum and assessment regimes in the late 1990s, teachers' workloads also became large and unmanageable (Wylie, 2013). Competition between schools inhibited collaboration and created a stratified education system of winner and loser schools (Langley, 2009; Wylie, 2012), with low decile schools, rural schools and schools with a high number of Māori students finding it difficult to attract and retain principals (Wylie, 2012). With schools working in competition and in isolation from each other, it is difficult to create systems capacity that drives improvement in teaching and learning. For this reason, Wylie (2012,

2013) recommended changing the Tomorrow's Schools model to a system of networked schools, such as school districts, that would enable more collaboration, shared responsibility and equity across the education system. Although Tomorrow's Schools is now nearly 30 years old, New Zealand schools still work largely within this model. However, recent government reforms see schools poised for a step change with the initiation of Communities of Learning or Kāhui Ako.

### **2.5.2 Development of Communities of Learning / Kāhui Ako**

Government initiatives in recent years have been moving the New Zealand education system towards engaging in more connected, collaborative, school networks. Networked Learning Communities, supported by the Ministry of Education between 2008 and 2010, were set up to assist schools to engage with and implement the New Zealand Curriculum. These clusters were considered successful as professional learning groups, but for the most part they fell short of developing a critical learning culture that affected change in teaching (Ward & Henderson, 2011). Learning and Change Networks (LCN) was a strategy introduced by the Ministry of Education in 2012 with the goal of improving student achievement through schools clustering and collaboration (Annan & Carpenter, 2014). LCN key features were placing the learner at the centre of the network; schools, community and whānau voluntary collaboration; and facilitated support to cross pollinate ideas and build system capacity. LCN was considered a model of successful schools' collaboration that would inform the development of the IES initiative (Patterson, 2014).

Investing in Educational Success (IES) was announced by the government early in 2014 as a substantial investment, 359 million dollars, to raise student achievement through schools' collaboration. A key feature would be the creation of geographically based Communities of Schools that would work collaboratively towards shared achievement goals. Communities would be self-identifying, voluntary, and of mixed types, primary and secondary. There would be new roles and career pathways created that would be negotiated with the teacher unions and included in teacher collective agreements. Also included was a principals' recruitment

allowance for high need schools, teacher release time for inquiry, and a 'Teacher Led Innovation Fund' providing contestable funds for teacher led inquiry projects (Investing in Educational Success Working Group, 2014). There was push back from the NZEI, the primary teachers' union, who voted an overwhelming 93% no confidence in the IES strategy. They felt that this substantial investment in education was mostly an investment in teachers' salaries and would be better spent in areas of higher need such as special needs education, that top down collaboration would not be genuine, and that the sector had not been adequately consulted in the development of IES (Barback, 2014; Wylie, 2016). A joint initiative working party was established to shape IES, where the NZEI sought to widen the curriculum scope beyond National Standards, include Early Childhood Education, include support staff, and identify successful features of collaboration to inform the new strategy (NZEI and Ministry of Education, 2015; Wylie, 2016).

Through further consultation with the Joint Initiative Working Party the IES strategy became 'Communities of Learning | Kāhui Ako'. By 2016, two thirds of New Zealand schools were engaged in a Community of Learning (CoL), either in the initial setup process or within an established CoL (Wylie, 2016, 2017). A national survey of schools in 2016 found that many involved in CoLs realised that this strategy was a big system change for New Zealand education; and although there was some optimism about the potential of CoLs to enable collaboration, improve student achievement, ease school transitions and access resources, there were also many tensions. Many primary schools felt that achievement goals were too narrowly focused on National Standards, and the Ministry of Education was playing too much of a role in setting them. There was tension around the appointment of key across school roles, and a feeling that CoL work came at an expense to their own school in terms of higher workloads and sharing teachers. Some principals felt that they had a lack of choice in entering a CoL, being pressured to join to be able to access resources such as Professional Learning and Development (PLD) (Wylie, 2016). CoLs were described as being in the 'emergent stage', requiring more time and support to bed down into the education system.

Other educational changes are in process, such as the recent Education (Update) Amendment Act and a proposed funding review for schools (Wylie, 2017). The funding review is aimed at scrapping the decile rating system, whereby schools are funded according to the socio-economic demographic of their community, and moving to a system that is based on students' progress against the curricula, targeted funding for individual challenges such as special needs or disadvantaged backgrounds, and supplementary funding for small and isolated schools through network provision (Parata, 2016). The Education (Update) Amendment Act Update provided a raft of changes, including supporting the development of CoLs and the initiation of a regulatory framework for online learning, enabling the establishment of Communities of Online Learning (Kaye, 2017; Ministry of Education, 2017c; Wylie, 2017).

### **2.5.3 Digital technologies and 21st Century learning**

Alongside the major schooling changes of the last three decades, there have been several government initiatives and policies focused on digital technologies and 21<sup>st</sup> Century learning that have been instrumental in the growth of virtual learning and school networks in New Zealand (Whalley, 2016). These key government educational policies were Interactive Education an ICT Strategy for Schools (Ministry of Education, 1998), Digital Horizons (Ministry of Education, 2002), and Enabling 21st Century Learners (Ministry of Education, 2006), (Powell & Barbour, 2011; Whalley, 2016). These policies gave rise to projects such as ICTPD teacher professional development clusters, which enabled new networks such as the early VLN secondary clusters to grow (Arif, 2016; Barbour & Wenmoth, 2013); and helped to foster an environment that was focussed on innovation and ICT, together with resources and professional support for teachers and schools who were extending into learning online (Langley, 2003; Powell & Barbour, 2011).

The terms *21st century learning* and *future focused learning* are used interchangeably and often linked with, though not exclusively related to, the use of digital technologies (Bolstad, Gilbert, McDowall, Bull, Boyd & Hipkins, 2012). They reflect:



an emerging cluster of ideas, beliefs, knowledge, theories and practices which have deep roots in contemporary theories about knowledge and learning in the context of the massive economic, social, technological, cultural, and environmental developments. (Bolstad, 2011, p. 78)

Bolstad et al. (2012), identified six principles for a future focused education system:

- Personalised learning - where the system is built around the needs of the learner;
- New ways of thinking about equity, diversity and inclusivity;
- A curriculum that uses knowledge to develop learning capacity;
- A culture of continuous learning for educators and leaders;
- Rethinking the roles of learners and teachers;
- New ways of engaging schools with the wider community.

Sub-themes related to the roles of new technologies and collaborative practice are considered important to the development of future focused learning in schools, along with three key ideas of “diversity”, “connectedness” and “coherence” (Bolstad et al., 2012 p 10). These principles, themes and key ideas provide a framework for policy makers, education leaders and teachers to develop a shared understanding on the future of schooling in New Zealand (Bolstad, 2011; Bolstad et al, 2012).

There has been no recent policy around 21st Century learning or digital technologies in education as there had been in the previous decade. However, in 2012 the government commissioned an Education and Science Select Committee inquiry into 21st century learning environments and digital literacy to:

investigate and to make recommendations on the best structures, tools, and communities, in both rural and urban New Zealand, for enabling students and educators to attain the knowledge and skills, such as digital literacy, that the 21st century demands of us all. (Kaye, 2012, p. 9)

A reference group was formed and made recommendations on how the government could invest in people, learning environments and resources, collaborative networks, and infrastructure to build capability in the education sector (21st Century Learning Reference Group, 2014).

Government policies and initiatives have provided direction and support, in the most part, to enable schools to work in more future focused collaborative ways. However, legacy systems such as Tomorrow's Schools can provide a barrier to schools working collaboratively, and new systems such as Kāhui Ako are yet to be successfully implemented and embedded.

## **2.6 Summary**

This chapter has explored the literature on virtual learning, rural education and collaborative practice across schools. I have discussed definitions of rurality and described the characteristics of small rural schools and their communities in the New Zealand setting. Challenges faced by principals of small rural primary schools are identified, along with some innovative approaches implemented to counter these challenges. I have looked at features of effective collaboration and theory that underpins this. Virtual learning is defined, and background is given to the development of online school clusters in New Zealand. The challenges and benefits of virtual learning are discussed. An overview of schooling policy that has influenced virtual learning and collaborative practice in New Zealand schools is given. The next chapter describes the research design and methodology of this study.

## **Chapter Three: Research design and methodology**

### **3.1 Introduction**

This chapter outlines my educational research design and process, describing where it is situated in the context of current research paradigms and methodologies. I explain the research process regarding the recruitment of participants, the generation and analysis of data, the quality and validity of data and ethical considerations.

### **3.2 Research methodology and paradigms**

Research is a purposeful and systematic investigation about a question of interest or a problem. Its purpose is to create new knowledge and understandings, building on previous knowledge and contributing to a wider knowledge base. Research should follow ethical processes and the results of research should be written up and disseminated for peer review (Basit, 2010; Bell, 1999; Menter, Elliot, Hulme, Lewin, & Lowden, 2011; Mutch, 2013).

Researchers make assumptions in ontology, which is the way reality is constructed or a person or group's world view; and in epistemology, which is a philosophy of knowledge, how we come to know. This in turn influences decisions regarding research methodologies and the tools and data collection methods that are used (Cohen, Manion & Morrison, 2007; Davidson & Tolich, 2003; Krausse, 2005; Markula & Silk, 2011; Willis, 2007). The method or approach that is chosen will depend on the type of study and what we want to know (Bell, 1999; Cohen et al., 2007). These are the variables that constitute a research paradigm, and they will be discussed in the next section.

Paradigms are different approaches, constructs, theories or perspectives that frame and organise our thinking about the world (Basit, 2010; Donmoyer, 2006; Heron & Reason, 1997; Willis, 2007). A paradigm is:

...an overarching set of beliefs that provides the parameters - how researchers understand reality and the nature of truth, how they understand what is knowledge, how they act and the role they

undertake, how they understand participants and how they disseminate knowledge - of a given research project (Markula & Silk, 2011, p. 25).

There are competing paradigms that can guide our thinking when designing research. For example, positivist research is a very structured, controlled 'scientific' approach to research that usually involves the collection of quantitative data that will seek to prove causation. Educational research, which focuses on people, organisations and interactions, is often suited to an interpretivist framework and qualitative research design, which aims to uncover the lived reality and constructed meanings of the research participants (Mutch, 2013).

An interpretivist paradigm has an ontology where reality is socially constructed, is context dependent (socially, culturally and historically), and able to have multiple meanings depending on individuals' perspectives. The epistemology of this paradigm concerns the generation of new knowledge, where the stance of the researcher is not subjective, as they are part of the research process, and involved in co-constructing meaning (Cohen et al., 2007; Davidson & Tolich, 2003; Denzin & Lincoln, 2011; Krause, 2005; Mutch, 2013).

### **3.3 Research design**

The design of this research is situated within an interpretivist or constructivist framework where meanings are co-constructed with the research participants and the researcher (Cohen et al., 2007; Davidson & Tolich, 2003; Denzin & Lincoln, 2011; Krause, 2005; Mutch, 2013). This approach suits the purpose of my research, in as much as the complexity of human behaviour within an educational setting is represented by hearing what people feel and think about things. Multiple perspectives and personal experiences from a range of participants can be heard and explored (Borko, Liston & Whitcomb, 2007). Education is complex, but within online education it is even more so, with elements of the social, organisational and technical that can affect theory and practice (Anderson & Zawacki-Richter, 2014).

Critical theory influences this study as my research question seeks to find solutions to challenges that small rural schools face and to provide opportunities for learners and teachers in these schools. Critical theory is a broad research field that interprets and critiques current realities and explores socially just possibilities (Anyon, 2009; McLaren & Giarelli, 1995; Rasmussen, 2015). Furthermore, critical theory can be a powerful tool to explore the past, present and future, and connect what happens inside education to wider political and social agendas (Anyon, 2009). This study has underlying aims of social justice, as it seeks to improve equity and access to opportunities for small rural schools and to explore the nature of schooling. Tait & O'Rourke (2014) articulate this aim when they say: "Our concept of social justice for each individual encompasses both the notion of equality rights as a 'level playing field,'" and the "right to opportunities and support that enable each person to fully participate in all aspects of society—to get to the playing field in the first place" (p.51).

The role of the researcher is an important factor within the interpretivist paradigm framework. Researchers cannot be objective as they are part of the world of both the observer and observed (Denzin & Lincoln, 2011). As interactive participants in the knowledge building process, researchers hold a privileged insider position, which requires an understanding of bias but also brings valuable experience and insight into the inquiry (Bickman & Rog, 1998; Markula & Silk, 2011).

### **3.4 Research participants**

The research participants in this study were selected through a process of purposive sampling. Purposive, or judgement sampling, is an approach common in qualitative research that is used to ensure that participants have the necessary characteristics to provide rich and relevant information on the topic of study (Palys, 2008; Ritchie, Lewis, McNaughton & Ormston, 2014). Techniques such as deciding on your sample size, population and how to select a sample can have implications on the validity and quality of your research (Bell, 2010; Cohen et al., 2007; Davidson & Tolich, 2003; Menter et al., 2011).

Decisions made about the sampling criteria were informed by the main research question, “What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?” Therefore, I needed to recruit participants who were from small rural New Zealand primary schools (U1 - U3 schools), and who had current experience of collaborating and teaching and learning online. The VLN Primary School has many rural schools in its network (VLN Primary School, 2016), and it was this school network that provided a pool of potential participants. Principals from these schools were contacted through email with information outlining the research project objectives and an invitation to participate in this study (Appendix One).

Eight principals responded, and they were selected to be participants in a semi-structured group interview; two were later selected from this group to participate in individual interviews. Two group interviews were held, due to the logistical challenges of finding one time that suited all the participants’ schedules. Focus group interviews were held with one group of five participants and another group of three participants. Although having two group interviews added to the time and workload of conducting interviews and transcribing and analysing data, it was useful to explore different avenues of discussion and avoid some of the ‘group-think’ effect, described previously in section 2.3.1, of participants who reiterate points and reinforce each other’s views (Donohoo, 2017; Rincón-Gallardo & Fullan, 2016).

Judgements on the selection of participants for the two individual interviews were based on analysis of the first group interviews to identify participants who appeared to have the most depth of knowledge and experience in the context of this study, and who also appeared to hold differing views and opinions from the others.

All participants in this research were principals of small rural Primary Schools from many different locations across New Zealand. Several of the schools were relatively remote, being approximately an hour from an urban centre. Two of the schools were island schools, and one school was within close range of more than one urban centre. All schools but one

were eligible for Ministry of Education targeted funding for isolation. All participants were either sole charge or U1 principals, meaning that a portion of their working time is spent on teaching, as well as administration and running the school.

Four of the principals had several years' experience collaborating online together and were close professional colleagues. Three of the principals had more recently joined this collaborative group, and another principal was not part of an online collaborative group but had much experience with connecting her students to others online. All principals were working with the VLN Primary School to provide access to online learning for their students.

### **3.5 Data generation**

Data was generated through a series of semi-structured interviews with participant groups and then individuals. Semi-structured interviews are used when a researcher has a general idea on the topics related to the research question and maps out a series of questions to guide discussion around the topic (Menter et al, 2011). An interview schedule (Appendix Two) was used to outline the key questions and topics and to guide me on how to conduct the interviews. Interviews are an active process of exchanging viewpoints between a group of people and are a useful method to explore topics in more detail (Mentor et al, 2011; Cohen et al., 2007). Interviews also enable participants to convey their ideas and feelings, which gives them a voice in the research process (Wellington, 2000). I felt it was important that the participants' voices be heard throughout the research process as this was an expression of the experience they had to share. Therefore, interviews were an ideal way to relay the authentic voice of my participants.

Group interviews and individual interviews were scheduled at a time that suited everyone and took place online using the Zoom web conferencing platform (<https://zoom.us/>). Web conferencing was used as the method of communicating as the research participants were spread in remote locations across the country, and it would have been very costly and time

consuming to meet with them face to face. The Zoom platform was used as it is reliable, works well in situations where there may be low or variable bandwidth, and is one that the participants were familiar with, as all VLN Primary online programmes utilise Zoom technology. Recordings were made of both the group and individual interviews through the Zoom web conference room, and an additional audio recording was made using my cell phone, as back up should the online recording be unsuccessful. The use of web cameras enabled nuances of facial expression and body language to add to the quality of data, and recordings could be replayed if there was any ambiguity or uncertainty in analysing discussion.

Transcriptions were made of the two focus group interviews using Transcribe (<https://transcribe.wreally.com/>). This free online software enabled me to easily transcribe the audio content from the recorded interviews. The individual interviews were not transcribed due to time constraints, but they were recorded, and comprehensive field notes were taken instead. Final transcriptions were made available to each group of interviewees through shared google documents. Participants were given the opportunity to comment on the document related to their own group interview and were asked to check the accuracy of the recorded transcription. They were also invited to provide further clarification or comments on the research discussion if they felt they wanted to.

### **3.6 Data analysis**

Once data had been generated through the group and individual interviews, it was prepared for analysis. Cohen et al. (2007) describes this as a process of 'data reduction', whereby the mass of data gathered through the interview process is reduced to a manageable format. This involves data checking and applying coding conventions (Menter et al, 2011).

Cohen et al. (2007) describe the characteristics of research as being systematic and controlled, empirical and self-correcting. Therefore, research is a combination of observation, experience and reasoning. A recursive process is followed where hypotheses are made, reasoning is



applied, and ideas are revised or discarded. As a researcher, I continually needed to be checking the data during analysis to ensure the meanings constructed were true to the participant's intention, and that my own assumptions and perspectives were not influencing my judgement.

A grounded theory method of inductive analysis was used to extract findings from the data. Grounded theory is a flexible, iterative process of working from descriptive data to develop themes and theoretical understandings. Data is coded and categorised into themes and sub-themes through cycles of analysis that compares and questions the data looking for commonalities and differences until saturation point is reached (Charmaz, 2014; Corbin & Stauss, 2015; Menter et al, 2011).

The process of transcription was my first analysis of the research data. Taking the time to listen carefully, often repeatedly, to type the text as I heard it provided an opportunity to get to know the data intimately. I then used a word cloud generator (<https://tagcrowd.com/>) to create a visual representation of the data which would give me initial indications of key concepts to be aware of through further examination of the data. Word cloud tools create a visual image based on the frequency of the descriptive words entered into the tool, thus providing a quick summary of the data and a useful starting point for more detailed analysis (Parkes et al. 2015).

After this, I read carefully through the printed transcripts, highlighting key statements and recording notes in the margins. I then transferred the highlighted words and statements to individual lines on a spreadsheet and assigned initial codes to each of them. I created a new sheet on the spreadsheet, copied over the data from the first sheet and began a new process of iteration in which I condensed, paraphrased, discounted, adapted and created a different more descriptive set of codes. I again created new sheets and copied over data for a further three iterations, whereby I identified themes through colour coding and categorisation of codes. I sorted and adapted themes, and identified sub-themes while cutting out repetition in the coded statements (Appendix Three). I then reordered the themes so that they were no longer organised

chronologically but were in an order that made more sense in relation to the key concepts in the research question. Each time I revisited the data seeking further clarification of meaning, I was very conscious of ensuring that I was being faithful to what the participants had to say and the context in which it was said. Once the themes and sub-themes and final descriptive codes were decided, I returned to the transcriptions and identified the best supporting quotes to illustrate each code and constructed a data table of research findings (Appendix Four). This iteration allowed me to once again check the meaning I was making from the data and to draw out the quotes that would be the basis for supporting my findings and give voice to the participants during the writing process.

### **3.7 Data quality**

What counts as evidence in research is generating valid data and performing data analysis that matches the research question that was posed (Bickman & Rog, 1998; Davidson & Tolich, 2003; Shenton, 2004). This is termed 'construct validity'. The type of evidence that counts depends on the research paradigm, design and methods used. Positivist paradigms seek to make generalisations that are probable for larger groups (Borko et al., 2007). Within the interpretivist paradigm this isn't applicable because of the highly contextualised and social nature of the research. Instead typicality is aimed for (Davidson & Tolich, 2003; Krausse, 2005). Narratives of participants' experiences may not be true for larger numbers because they are based on a small sample, but they are relatable in meaning, in that others can apply findings to their own circumstances (Bell, 1999).

What counts as knowledge is also determined by the community within which the research is situated, which recognises what is real, meaningful and useful to them, and can inform their viewpoints and practice (Denzin & Lincoln, 2011; Siegel, 2006). Borko et al. (2007) discuss the tension of insider researcher bias and the trustworthiness of data. They believe it is critical to capture participants' voice, analyse data recursively and make your methods transparent and open to others. As a research practitioner, I

held a privileged insider position, and therefore I followed these methods proposed by Bell (2010) and Wellington (2000), to ensure data validity:

- triangulated my methods by using two different types of interviews and gained critical feedback from others;
- made checks with participants to ensure I was not misrepresenting what they said;
- generated rich descriptive data and kept detailed and organised records of notes, conversations, recordings, and transcripts so that others could verify the claims being made;
- and followed ethical procedure.

### **3.8 Ethics**

Ethics are described by Wellington (2000) as a set of moral principles that guide the way people behave. Ethics in educational research can be complex and messy, as it involves working with human beings and often with children. There are, however, some core ethical principles that underpin most codes of ethics, which have been listed by Davidson and Tolich (2003) as:

1. first, do no harm;
2. all participation needs to be voluntary;
3. preserve the anonymity or confidentiality of participants;
4. avoid deceit;
5. analyse and report data faithfully. (p. 81)

Ethical considerations are inextricably intertwined with the validity of research outcomes (Davidson & Tolich, 2003; Denzin & Lincoln, 2011). Mutch (2005) states, "If it is research, then it must follow ethical principles" (p.76).

Researchers need to be mindful of ethical considerations, not just in preparing and applying for permission to research, but throughout the entire process, right through to the dissemination of research findings. They need to be reflexive practitioners and attune themselves to ethically important moments that will occur during their research (Clayton, 2013; Guillemin & Gillam, 2014; Phelan & Kinsella, 2013; Warin, 2011).

Before research is undertaken through formal institutions, it must be approved by an ethics committee (Mutch, 2013). This research was granted ethics approval by the University of Waikato (UoW) Research Ethics Committee in May 2017, and as such I was bound by the University's ethical code of conduct (UoW, 2008).

Gaining informed consent is the next part of the research process, and information and consent forms (Appendix Five) were sent to all potential participants with their invitation to participate. UoW (2008) require that informed consent is gained with "prior, free and express" approval in a "culturally and socially appropriate manner". Informed consent means that research participants fully understand the purpose of the research and what is required of them to participate. They are not coerced or manipulated to be involved, and they give their consent through their own free will. Participants also have the right of withdrawal, meaning that at any time during the research process they can choose not to participate, and, if they request, withdraw the right to use any data that has been collected that pertains to them (UoW, 2008; Mutch 2005; Wilkinson, 2001). Informed consent is important as it preserves the autonomy and welfare of research participants (Wilkinson, 2001), thereby enabling them to make judgments for themselves regarding the burden versus benefit of their involvement in the research project and protecting themselves from harm.

Preserving confidentiality of all participants is another key consideration of ethical research. Markula and Silk (2011) make the distinction between confidentiality that is a participant's right not to be publicly identified (anonymity) and confidentiality where a personal information is respected and secure (privacy). If confidentiality, in either of these forms just described, is compromised there is risk of harm to participants, which could result in distrust of the researcher and jeopardise the validity of research. Researchers are required to collect only data that is relevant to the purposes of the research, store data in an organised and safe way so that only authorised people have access to it, and not publicly identify anyone without their explicit consent (Davidson & Tollich, 2003; UoW 2008). During the transcription and writing process I used pseudonyms

and removed reference to geographic identifiers so as not to identify individuals.

As I am the ePrincipal of the VLN Primary School, there may be a perceived power issue over the intended research participants, who are principals of schools that participate in the VLN Primary. There is a possibility that these participants may only communicate information that is positive to me, or they may feel pressured to participate. To overcome any perceived power relationships, I explained the nature of the project and invited their open and honest views, reaffirming that the research was focussed on the key questions and not the VLN Primary School per se, and that their views would be a valuable contribution. Conflicts of interest can reduce the validity of research if they are not handled in an open and transparent manner. Lincoln (1995) states that “a text that displays honesty or authenticity comes clean about its own stance and about the position of the author” (p. 280).

### **3.9 Summary**

This chapter described the design and methodology of this research study and made links to research theory. I explained the process of recruiting participants, generating and analysing data, and how I ensured that ethics were adhered to and research findings were valid. In the next chapter I present the findings of this research study.

## **Chapter Four: Presentation of findings**

### **4. 1 Introduction**

This chapter reports on the findings elicited from semi-structured group interviews and two individual interviews with rural principals of small New Zealand schools. The purpose of the interviews was to gain principals' perspectives on the research question, "What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?"

Data generated was in the form of narrative responses to the sub questions:

- What is the experience of teachers/principals with online collaboration across schools?
- What challenges are faced by principals of small rural schools'?
- What are the benefits of being a principal in a small rural school?
- What are principals' beliefs about learning online?
- What are some of the enablers and barriers to collaboration across schools?
- What are some of the enablers and barriers for teaching and learning online?
- How do principals think that teaching and learning online may change the nature of schooling in the future?

Transcripts from both group interviews were copied to a word cloud generator tool and a word cloud (Figure 4.1) was produced. This word cloud is a visual representation of the most frequently used words during the conversation and provided an early indication of themes, sub themes and concepts to be alert for during further data analysis.



*Figure 4.1 Word cloud of research transcripts*

For example, the word cloud shows that much of what principals had to say was centred around children learning online in schools. Access to the curriculum was a significant for principals, as was the importance of community. Teacher collaboration and teacher workload were discussed. The word 'face' appearing so prominently reflected the importance principals placed on face to face learning. The different opportunities rural schools provided, and the challenges and difficulties of rural schools were also key discussion points.

I sorted the data by going through a process of iterative analysis of principals' responses, and a range of themes and sub-themes (Table 4.1) emerged that will be reported on under the following headings:

- Principals' challenges and opportunities
- Professional collaboration
- The nature of online learning

**Table 4.1 Themes and sub-themes**

Themes	Sub themes
Principals' challenges and opportunities	<ul style="list-style-type: none"><li>● Curriculum and PLD challenges</li><li>● Stress of a high workload and not enough time</li><li>● Community and role expectations</li><li>● Having adequate staffing and resources</li><li>● Communicating and working with others outside the school</li><li>● Benefits and opportunities</li></ul>
Professional collaboration	<ul style="list-style-type: none"><li>● Benefits of being part of a professional group</li><li>● Features of successful collaboration</li><li>● Challenges to collaborative practice</li><li>● Communities of learning (CoL)</li></ul>
The nature of online learning	<ul style="list-style-type: none"><li>● What's important for successful online learning</li><li>● Role of the teacher</li><li>● Role of technology</li><li>● Benefits for learners</li><li>● Challenges of online learning</li></ul>

The extensive use of quotations in this chapter is intended to provide authentic voice to the perspective of principals. Narratives quoted throughout this chapter are highlighted in italics with the participant's pseudonym as a reference. Pseudonyms were assigned to each participant to provide confidentiality and to protect their privacy.



## 4.2 Principals' challenges and opportunities

The principals from the focus group and individual interviews talked about a range of issues they found to be challenging in their jobs relating to:

- curriculum and PLD challenges;
- stress of a high workload and not enough time;
- expectations around their role as principal;
- having adequate staffing and resources;
- communicating and working with others outside the school.

Along with the issues raised, the principals also related the positive side of their role, outlining the benefits they experienced, and opportunities they could create to overcome challenges. I will report on each of these issues in turn and sum up the opportunities as described by the principals.

### 4.2.1 Curriculum and PLD challenges

The principals considered that a smaller economy of scale was one of the disadvantages of being in a small rural school. Year group cohorts are smaller and therefore more difficult to cater to. For example, *"Just little things like getting a game of netball going, or rugby or whatever. All you need is two or three kids to spit the dummy and you haven't got a game"* (Dutchy). They said that preparing multi-level programmes for students of different ages and abilities is difficult and time consuming for teachers in small schools. Providing access to a wider range of curriculum and extension learning opportunities for children was also a challenge. The principals talked about enrolling children in online classes to extend their learning or to provide subjects such as languages. *"I started with one boy for extra maths. He was way above anything we could cope with in the normal classroom"* (Thar).

All principals talked about the difficulty of accessing PLD because of the remote locations of many of their rural schools, the difficulty in finding relievers, the higher cost of paying for a reliever and the cost and time to travel to PLD events. *"It's hard to get to PD from where I am and hard to get relievers. Who do you get? And where do you get them from?"* (Polo)

The principals also related how difficult it was to access PLD because of

bureaucracy and the time involved in making application to the Ministry of Education for funding:

*I mean the hoops, the Ministry made us jump through. The whole form, just moving your way around that document whatever type, excel, or whatever, was a minefield.... I get back, ok we'll give you 12 hours to help you to put in a proper application (Susan)*

Some principals felt that small rural schools were disadvantaged because their neighbouring schools were usually in the same position as they were, and shared similar challenges. For example, a lack of access to other schools to provide role modelling was indicated as a problem. *"I can't just go down the road. There are two little schools on either side of me and they're limited to how much they know"* (Dutchy). Being in the same position as their neighbouring schools was also related by principals as providing challenges with access to relievers. *"I can't just ring up Bob and say send me a teacher. He's probably in the same boat as me"* (Polo).

One principal expressed the frustration that there was a range of issues for principals in small rural schools that create barriers for them in taking up opportunities. *"I see so many opportunities that either we aren't able to take part in or you know there's excluding factors or things that just make it too damn hard"* (Isabel).

#### **4.2.2 Workload and time**

Time and workload issues were reported by all principals to be a major concern in their jobs. Working extremely long hours to be able to achieve the tasks expected of them, having to prioritise tasks and accept a lower standard because there wasn't enough time available, and juggling a complex and demanding workload all created stress for principals. *"There is a huge amount of stuff to do, you know you can't do it all to the standard you would like to, so you've got to try and work out what's the most important at the time"* (Bob).

Some principals reported that the time needed to support children with learning needs and to work with other professionals in support of those children took up a lot of their release time. *“The learning support part of my job now has over run to a good ...way over 50% of what I do in my release time”* (Isabel).

Time restraints were identified by some principals as a barrier to their developing strategic and creative opportunities for their school:

*I personally find that strategic time is what goes. Where you actually having time to move the school forward and plan new strategic things for your school. Because you're so busy doing the whole, kind of, just trying to get your admin done and get your teaching done. It's kind of like a disadvantage because you look at principals that don't have that teaching component.* (Mary)

Lack of time was considered by some principals to be a barrier to being able to collaborate with other schools, both in getting started for the first time with a collaborative initiative or maintaining existing collaborations. *“... and just to have the time. I do not have to put into doing a [online] class as well”* (Susan).

#### **4.2.3 Community and role expectations**

The community was considered by principals to be central to small rural schools, with the importance of reciprocal relationships and support, involvement in the development of local curriculum, and the influence of parental choice all being factors that were identified in this sub-theme.

According to the principals, the school is an important part of a rural community, and in turn the school depends on the community for support. *“The school is such an important thing for them that they all do come onboard”* (Bob). For some principals it can take some time to gain full support from the community. *“It's taken seven years to do that but I think they're on my side”* (Thar).

Having the community involved in children's learning and having children involved in the community was considered by some principals to be important in shaping a local based curriculum. *"What makes valuable learning, is doing it and relating to other people, you know going out into your community"* (Mary). Mary also felt that the local environment along with community involvement is also important in developing local curriculum. *"You've got to get that real community, or local environment based curriculum. You know you guys are in really interesting places as well."* She felt that this type of approach proves to be successful in engaging the children and providing valuable learning experiences for children, *"When everything is really successful, it's really locally based. That's the stuff that really engages the kids."*

One principal reflected how parents in the community can affect small rural schools when they make choices about where they are going to send their children to school. Some schools, especially those closer to urban areas, can be a desirable choice for parents:

*Parents are choosing to send their children here because of the small nature, because they know we've shifted kids with, who have been below or well below in the past and unfortunately perhaps it's becoming a magnet.* (Isabel)

The principals felt that there were high expectations placed on them as the central person in the school community. They related that expectations came from a range of different stakeholders, which required them to take on many different roles, with the main responsibility for decision making coming back to the them:

*We don't have the time to do what is the expectation from the community, from the parents, from the Ministry, from the Board. The expectation in a rural remote school, with not just the planning, it's looking after the management side of it, and even the governance. So, in all, the decisions do honestly come back down you. The Board chair, and fair enough they're there, we have our meetings;*

*but in reality, it's you that makes the choices for what's going to happen at school. (Polo)*

With their role being so central in the local community, the principals said that they were expected to engage with everyone in the community and they needed to be able to communicate well at different levels of the community:

*You're in a community so there's never the chance to switch off because no matter what, weekend, whatever, after school, you are still the Principal. .... you have to watch your Ps and Qs a little bit more, you have to engage with people often that you'd much rather tell where to go and do it in a very polite well-mannered way. (Bob)*

All principals were also teaching principals, and many related how difficult it was to balance the roles of being a classroom teacher and keeping up with the demands of school administration and leadership.

#### **4.2.4 Staffing and resourcing**

Staffing was highlighted by the principals as a major problem in many small rural schools. They told how it was difficult to recruit and retain permanent part time staff in schools that were in remote locations. Schools ended up having to rely on a limited pool of relievers just to help ease the time and workload pressure. The principals considered that using relievers in this way was an expensive and stop gap option:

*For me staffing is constantly an issue, because we are so remote... I'm battling to get a permanent person, because it's not enough hours to justify someone moving out here or driving out here for two hours at a time. So, I'm working with relievers constantly at the moment and paying exorbitant amounts of travel to people to get them out here. (Molly)*

Some principals believed that if there were two full time teachers in U1 sole charge schools, as NZEI (New Zealand teachers union) had looked at in the past, this would help to relieve staffing pressures.

Access to sufficient funding and resources was a concern expressed by principals. There was not enough funding for learning support, which was an increasing area of demand. *"You know when you look at my [grant] it's \$2000. What would you like me to do with that?"* (Isabel).

The availability of human resources to extend the curriculum for learners is a need in schools. The VLN was recognised as a way to improve access to human resources in schools. *"It's that constant, extracurricular stuff, like we've talked about, that we're using VLN for now that we don't have access to those resources, in terms of human resources"* (Molly).

Often funding is contestable, and principals said they lack the time to commit to funding applications that they might not secure

*We applied for that teacher led innovation funding, and we didn't get it... But you know it's kind of made me a bit, not that inclined to apply for other funding and things. ... And it's just like, well it feels like everything's stacked against us, cos we don't have. You know, all the things they are bringing in now take hours and hours to do applications for....* (Mary)

Geographic isolation can cause problems when children transition to high school. One principal said that parents at her school were more likely to send their children away for secondary schooling because of the distances to local schools:

*There is an area school, half an hour up the road and over a mountain. But our parents for one reason or another prefer to send their children away rather than them having a two-hour bus ride to go to an area school.* (Thar)

Another principal was concerned that some parents were without the resources needed to support their children at high school:

*And that is the big thing for the island, is what to do with secondary school. Especially for those people that may not have the funds to support their children at secondary schools. (Dutchy)*

#### **4.2.5 Communicating and working with others outside the school**

Working with others from outside the school was an area that one principal said placed extra demands on her in having to rely on others to be able to get her job done. For example, the need to wait for Ministry people to communicate back to the school and to have to constantly follow up to ensure work is completed is a drain on a principal's time and energy. Isabel related that she had to be a strong advocate for her school and work with external organisations to get things done for her school and students:

*You know the long list, you know, ERO, STA, everything. MoE, I mean, it feels to me like I have to be an advocate and it's something I've learnt in the last three years. So that this job has turned me into an advocate, otherwise known as a bitch, because you've got to stand up for your school.*

Isabel described how communication in a small school required different ways of working as they were often teaching and not always available. She described the challenge of managing communications with others who expected to come to the school and see them, or who could only communicate with them during school hours. Isabel expressed that this inflexibility didn't work for her as a principal in a small rural school, and explained how she had to prioritise her communication according to the needs of the school and the time she had available:

*Do you deal with it then, or do you go actually this is my time? So now I'm starting to, you know just pick my battles and learning to, oh it's this parent, it would be better for me if I just quickly reply and say 'see you in the morning let's touch base or I'll take my 24 hours and actually think about it before I reply. Different ways of working, yeah.*

#### 4.2.6 Benefits and opportunities

Although small rural school principals felt they had a wide range of issues to contend with, they also realised the benefits their job brought them. Not all principals felt their children were disadvantaged. One principal felt that:

*...we get more opportunities because of our isolation. Because we are an island school, we're a bit unique. I would be reluctant to leave as I don't think I would get the opportunities in other places.*  
(Mary)

Another principal expressed that children in small rural schools experienced both advantage and disadvantage. *"I always like to call these rural kids, the luckiest, unlucky kids. Like, they are lucky in so many aspects, but in other aspects, they have no idea"* (Dutchy).

The principals said that they get a great deal of satisfaction in providing a safe place for children to grow and develop, following their children's progress and achievements over time, and knowing that they are making a positive difference in the lives of young people:

*...to be able to watch the progression in their learning over time. It's not a case of do a bit for a year and then hand off. You get to see where they come from, where they're going, and where their next steps are. I get a buzz out of looking back at their results in the past and going Whoa they've come such a long way.* (Bob)

The principals valued their independence and the responsibility of being in charge of the school. Independence gives them the freedom, that they would not get in a larger school, to affect change and to, *"take chances"* (Polo), in their teaching practice. This enables them to develop children's skills and move them forward in their learning:

*I find that Principalship in a little rural remote place gives you, or it gives to me, the opportunity to make effective change and watch it grow. Like we had a blank canvas. And we've gone from a blank canvas to where we are today....* (Polo)



In a small rural school, the principals felt they were able to develop good relationships with students that would be difficult to maintain if they were in a larger school. They believed that small rural schools could be more inclusive for the children who attend them and these children themselves were unique:

*I just love seeing some of the kids particularly new kids to our school that have been disaffected or not engaged in the regular school and who have come here and who are allowed to be their quirky self. (Isabel)*

The principals, who had previously taught in town or city schools, felt that the rural school situation was very different to their earlier experiences. Some principals believed that rural children were “robust” and had “values” (Polo), and stood out from others as being different.

It was the perception of some principals that small rural schools could provide unique opportunities for learning, such as “building fruit orchards, doing preserving, and cooking for a term” (Polo), that town schools were unable to provide in the same way.

The ability for small schools to collaborate was considered by the principals to provide benefits for their schools. “What we are doing here with the VLN, for our little schools, especially for our rural group” (Polo). When schools collaborated, the principals believed that their children could get to know other children from similar schools and this could support their transitions to high school.

One principal told how the pressure of keeping up with circular pedagogical change was not felt so strongly in a small rural school, as illustrated by this comment:

*But a lot of the things that we're told or they have courses for in Auckland, kind of pass us by. And that has advantages too, it's actually quite nice, things go around in circles and you just stay where you are and actually you're not that badly off. (Dutchy)*

The outdoor environment, landscape and lifestyle that was unique to their small rural schools was appreciated by some of the principals. *“I can sit in my office, I can look out at the hills...with your paperwork and look out the window and just have space” (Bob).*

Online learning and collaboration was identified by the principals as something that could help them address some of the issues they faced. Online learning was considered helpful in freeing up teacher time and relieving workload issues by having another teacher working with students. It was also seen as an opportunity for principals to support each other online with their professional learning. *“You know it's not really so much the kids online, but we are not really making the most of it for our own...for our own school learning” (Molly).*

While the principals outlined a range of issues that provided challenges for them, they also identified benefits and opportunities of being a principal in a small rural school. Collaboration was identified by the principals as both a challenge and an opportunity. In the next section I will explore the theme of professional collaboration.

## **4.3 Professional collaboration**

The principals described how being part of a professional group could provide them benefits. Understanding how collaboration works within professional groups was considered by the principals to be important to ensure successful outcomes for everyone; as was identifying barriers to successful collaboration. Communities of Learning (CoLs), or Kāhui Ako as they are now named, drew a mixed response from principals as they discussed their experience with CoLs.

### **4.3.1 Benefits of being part of a professional group**

The principals identified the benefits they gained by being part of a professional group, such as how it enabled them to extend their networks and share experiences with other like-minded professionals. They felt that being part of a professional group was important to maintain connections and communication with colleagues. Some principals expressed how they valued being included by others in a professional group, enjoyed the

relationships formed, and *“found being a part of this group stimulating”* (Thar). They related how support was provided within a professional group from others who are working in similar contexts. *“...everyone has a similar outlook and the same sort of environment that you can bounce those ideas off whenever you sort of need to”* (Bob).

The principals described how working within a professional group enabled collaborative planning and teaching, and helped to relieve workload pressure:

*I know that Poetry unit Susan did and the novel study and stuff, that was great because those kids had that work for the term and I wasn't having to plan work for my Year 7 and 8s and that was awesome.* (Mary)

Through this type of collaborative approach to teaching, the principals explained how they could benchmark and compare children's work across their schools:

*We have the Work Worth Mentioning from our rural and remote kids. And we started making Work Worth Mentioning webs, or Google classroom for our school. But it would be awesome to kind of collaborate across a cluster, you know to have that sort of thing. Good examples of all sorts of work that kids could refer to.* (Mary)

#### **4.3.2 Features of successful collaboration**

According to the principals, successful collaboration requires developing shared understandings on working together, where everyone is involved and where collaborative programmes are included within a school's programme and not as something added on. Everyone must be involved and understand the need to contribute to make it work for the whole group:

*If someone's going to organise it then we want it to be across the board. And then you know one school's, like I don't want to do that..So yeah, it's kind of getting everyone to the same idea ...that it's not something extra. It's like we are actually doing it to our own*

*advantage so we're actually using each other to make our job easier. (Mary)*

Collaborative groups, stated one principal, *“need responsible and organised leaders, and someone motivated to drive things along. It's important to bring new people into the group and get them to step up”* (Polo).

The principals advised that careful preparation and planning was important for successful collaboration and required sufficient time dedicated to it. They also suggested that being organised and having good systems in place in your own school could provide the capacity to be able to devote time and energy to collaborating with other schools. Collaboration could mean taking responsibility for all the children in the group, not just the children in their own school. This is implied by one teacher as she describes teaching collaboratively in the rural and remote schools project as *“being an eteacher, taking classes online and being responsible for this group of Year 7 and 8s”* (Polo).

The principals discussed ideas for locally based projects that would be enhanced by collaborating with other schools. They outlined how children could share their local environment, gain new ideas, and provide an audience for each other's learning:

*So, there you'd have an audience, if we were all doing jobs and industries within our area and how the environment affects the jobs and industries, then the students could be doing all the inquiry and study into it and then share it with all the others. (Susan)*

#### **4.3.3 Challenges to collaborative practice**

One of the challenges that the principals said they experienced with collaborative practice was the varying expectations of the quality of planning and children's work across schools. They described the difference in expectations across different schools as having an impact on the equity of contributions by principals engaged in a collaborative project. It also created uncertainty about the time students needed to engage with the collaborative project, which in turn affected teachers' preparedness:

*...probably expectations of how much time will be allocated for the work, and how much preparation to put into it. And so One, there's no point in you planning something that's already planned, or Two, it's a bit of a worry if you think it's planned and you don't plan anything and you've suddenly got to cook something up. (Mary)*

One principal understood that there was a need and expectation to contribute to the collaborative group, but this was coupled with some uncertainty on how best to contribute.

Another principal talked about her school's focus on local curriculum, and how this made collaboration difficult as every school was doing something different in their own local communities. However, other principals considered this was not necessarily a barrier to collaboration if schools worked together on higher level planning and developing bigger picture questions of inquiry:

*But I'm sort on two hands here, because I'm saying it would be great to work more collaboratively, but if you're doing that sort of thing it doesn't really lend itself to collaboration with other schools, because you're not going to really be doing the same things. (Mary)*

*Although your bigger picture questions are Mary, because you just said then, exactly some of the stuff, that, and I went oh we could be doing that. (Molly)*

#### **4.3.4 Communities of learning (CoL)**

Communities of learning (CoL), or Kāhui Ako, were discussed by the principals as a context for collaboration between schools. They shared their experiences of being in a CoL, with all but two of the participants belonging to a CoL.

One potential benefit perceived by the principals was the opportunity to have access to a wider professional network. *"For me the great idea of a CoL was actually being with other principals who weren't just the four cluster principals, it was a wider group of principals who had greater ideas"* (Thar). However, there was frustration that the Ministry of Education was

not behaving as a collaborative partner with CoLs through their imposition of achievement targets on schools. *"We had our ideas about what we wanted to have as our focus and then those on high came in and said you will focus on..."* (Thar).

Competition between schools for student enrolments was considered by some principals to be a barrier to collaboration as it would be difficult for those schools to communicate openly with one another. A self-selected online community of schools was seen by some principals to be an option to connect with schools that were not competitive. *"...that's probably where your communities of online learning, would be much better, you could pick and choose across the country on who you wanted to have those conversations with..."* (Bob).

One principal felt that CoLs could enable collaboration and learning across the sector, where high schools and primary schools could learn from each other:

*We're in the, kind of, 21st century. At least we are dragging ourselves into it. Unfortunately, some of our high schools are, you know, somewhere way back in the year dot. So i can see that the collaboration between the cross sector, is, we're all learning.*  
(Isabel)

Concerns were raised by the principals about the inequity of roles in CoLs. For example, a lead across schools' teacher working in a CoL could earn the same salary as a rural principal. This was considered a cause of tension for principals of small rural school within CoLs. The principals also expressed concerns about the huge costs involved within CoLs, *"...it makes me sick thinking of all this money. I want to make our CoL work because it's so much money otherwise and so far, we've had benefits"* (Isabel).

Some principals could understand the benefits of being in a CoL but felt that their potential was unrealised. *"So being part of a CoL, on one hand is great but at the moment ours isn't working"* (Thar).

Professional collaboration, including collaboration within CoLs, was discussed by the principals. They shared their experience of what they thought made successful collaboration, the barriers to collaboration and the benefits that could be gained from being part of a professional group. Online learning was raised in this discussion by the principals as an example of how principals could teach collaboratively and connect professionally. In the next section I will report on principals' views of online learning.

## **4.4 Nature of online learning**

The principals talked about factors they thought were necessary for students to be successful online learners, what benefits online learners experienced, the changing role of teachers, and the types of challenges they experienced with learning online.

### **4.4.1 What's important for successful online learning**

The principals considered that online learning on its own was not enough for learners as they felt that face to face learning was very important. *"I think it's quite important that we don't just keep it at online learning. It's nice to be able to put a face to \*\*\*\* and be able to talk to her face to face"* (Dutchy). Blended learning was considered by all the principals to provide a good balance between online and face to face learning. They asserted that how children learn, whether online, face to face or blended, was highly dependent on each child's situation, *"So definitely a blend but individually obviously every kid's situation is different"* (Isabel).

Synchronous visual online interactions were deemed to be important by the principals, as children could engage more academically and socially with each other and their online teacher. *"The social side, the academic side. Seeing each other on the screen through Zoom, really means a lot rather than just typing away"* (Thar). Interactions with real people and the involvement of quality teachers were important for children's engagement in online classes. *"I think that real person always needs to be there... and I've been absolutely amazed at the quality of some of our teachers"* (Dutchy).

The principals stated the importance of safe online learning environments. *“A nice safe platform that we’ve got with Zoom and learning as they do when they first come in, is about cybersafety (Polo).*

Asynchronous online learning was valued by some principals to provide more flexibility and reduce the need for timetabling set times for online classes. Online tools, such as Maths Buddy or Sum Dog, were being utilised by some to support individual learning programmes. However, the principals stressed the importance of online learning that was designed to be interactive. *“I think it’s quite exciting, but I also think IT can be, gosh it’s very easy to stick a person in front of a screen and let them blob out. I think it’s got to be interactive” (Dutchy).*

The principals agreed that the provision of support for online learners was important to ensure success. This support involved maintaining good communication with online teachers, managing the dynamics and numbers of students learning online together in groups, and providing the necessary adult supervision:

*My kids are in groups of two, or by themselves seem to be fine but my VLN kids when there’s four of them, they can’t really be left to their own devices, not VLN, my rural kids, where there’s four of them, they get a bit silly. (Mary)*

Self-management skills were identified by the principals as being important for students to keep on task with online learning, and teacher support could help to *“remind those kids when they are losing focus” (Bob).*

#### **4.4.2 Role of the teacher**

The principals described various situations where the role of the teacher was changed by online learning. Teachers took more of a supervisory role and their time was freed up to do other tasks when children were participating in an online class. However, the principals expressed some concern at not being directly involved in children’s learning and so felt uncertain about the participation and achievement of their children in online classes:



*I find the challenge is when they are online, they are individuals, or maybe two students and they are away from me, and I actually have no idea how well they are participating, and what they are actually learning and getting from it. (Susan)*

One principal expressed concern that the use of online tools to create learning programmes for students meant that technology was taking on the role of a second teacher in the classroom:

*I do, sadly rely on the second teacher, like Maths Buddy... and sometimes I find my planning is more catching up and seeing what they've achieved and what they might need more work on and then resetting another task for them. (Susan)*

Some principals talked about their role as an online teacher and the necessity of improving their digital skills, as this could affect students' participation in online learning. *"I think that's been a big thing for me too was getting me up there with using the technology that's there, being an eteacher, taking classes online" (Polo).*

#### **4.4.3 Role of technology**

As the principals discussed their experiences of collaboration and online learning, they noted on several occasions the role of technology. They referred to faster broadband access, and their beliefs that technology had been and would continue to be a driver for change in schools. *"With the advent of quicker broadband and what have you, we've made a shift in education that perhaps five years ago we didn't even think would happen" (Dutchy).*

The principals accredited better infrastructure for improved access to online learning tools, and mentioned that online learning tools being used were becoming ubiquitous and similar across schools and across online and face to face classrooms:

*It's so really good that they've started using Google Classroom in most of those classes. Because we work with Google classroom so*

*that's kind of handy. And it's good because what i'm gathering most of the high schools use Google classroom. (Molly)*

However, even with the improvements in infrastructure, broadband, and technology, principals felt that the internet was still not accessible to all, and infrastructure could still be unreliable, particularly in rural and remote areas:

*There is talk that we will have all sorts of beautiful wiring in the very near future, but who knows when that will be. For instance, last week somebody up in \*\*\* drove his truck into the power pole therefore all the telephones were out for three days. Now if that still happens in this day and age, you know what chance have we got for being online, permanently with these kiddies (Thar).*

Another concern for some principals was lack of internet access for children at home. *"We can't give children any work from home that involves internet as they don't have access. Families have internet, but it is capped and expensive and gets used by the adults in the house first"* (Polo).

#### **4.4.4 Benefits for learners**

The principals discussed how they believed online learning provided benefits for learners by supplementing the curriculum and supporting teachers in curriculum areas that were not their strengths, giving more flexibility and choice in learning, and providing valuable preparation for children going from primary school to high school:

*It's really good preparation for the kids going to high school. Because in a wee school it's hard for them to have practice at timetabling issues, having other teachers, and having deadlines and things like that. So that's really good for them to have different classes during the week that they need to go out to. (Mary)*

The principals asserted that online collaborative learning created opportunities for small rural schools to access experienced teachers and a wider curriculum, and to extend children's learning. *"We've done all these*

*things that I couldn't possibly hope to do in a small rural environment"* (Dutchy). Children gained agency by having choices in their learning and could gain access to the wider world by participating in online programmes and projects. *"So we are making these responsible students out there in the global world"* (Polo).

The principals recognised that teachers, as well as their students, could also access learning opportunities online. *"I would rather have PD like online, some PD I would do some things online, which is more beneficial to me, than travelling all the way into town"* (Polo).

They related that bringing children together to learn with other children online could provide social benefits. Children were able to socialise and make friends with others in similar small schools from diverse areas:

*I know my kids, being able to mix with kids from similar size schools but such a diverse region, really enjoy it and a couple of them have made some pretty good friends in the past and I know they have kept in touch with.* (Bob)

The principals said that online learning helped them to provide learning opportunities for a diverse range of age and skill levels. In addition, very different groups of children could experience similar benefits through learning online. *"Each camp [Rural & Remote online class] has been a different lot of kids but they're getting the same benefits of learning online with our eteachers"* (Polo). However, the principals advised that it was important to recognise how children liked to learn and that they all learnt differently. *"There are definitely some children that need solitude and some that need being together and usually most of them do require that teacher input"* (Isabel).

Some principals described online learning as engaging to students because it was different and special *"from doing their everyday work"* (Thar). One principal related that children expected to be able to participate in online learning, parents valued the opportunity, and children even stayed in their school rather than move to a different school, so that they could participate in online learning. *"So, they knew all about the*

*excitement and hype that goes with going on camp [Rural & Remote online class] and that really made them work for the next two years"* (Thar).

The principals reported that over time children developed a range of key competencies, time management, independent learning skills and responsibility. They developed skills in using technology and learnt to be digitally fluent. Children developed capabilities in real world learning and were empowered by instant access of technology. *"...students learning in the real world and like Bob said it's that moment of now...That the kids being able to use these capabilities and the technology gives them the power"* (Polo).

One principal described how skills of visual literacy, learning by watching, listening and doing, were enhanced by online learning. This had benefits for children who struggled with reading:

*Once upon a time, the kids would Google to find out how to do something. No that's too old now, they'll Youtube it and get someone to actually show them. In that way the different learning skills come into play.* (Bob)

The principals related how children learnt to exercise choice in what and how they learned and understood the expectations of learning online. *"They know what the expectation is and how to behave in that classroom and I think it's all good grounding"* (Polo). However, some principals believed that if students were given complete freedom of choice, they would stay at home to learn instead of coming to school, and then prefer to be out on the land instead of learning. *"My kids would love to stay at home every day and do their lessons"* (Polo). *"Our kids would be out hunting, shooting and fishing instead of sitting home on their computers"* (Thar). Some principals described how children were active in developing their learning with others and worked well with students from other schools. *"And I like the idea that the kids learning, learning together, you know co-constructive learning where they are learning with an experienced teacher..."* (Molly).

Learning online, said one principal, enabled children to compare themselves with other students and motivated them to do better in their learning:

*Well the big thing for me was for the students initially to see other children's work and quality of work, and what could be done around New Zealand. Because when you are in a very small, isolated school, and you happen to have one child at a particular level, being able to have that sort of impetus to push them to do a little bit more, to add a little bit more value to their work. That was very important for me. (Susan)*

#### **4.4.5 Challenges of online learning**

Alongside the benefits of online learning, the principals also identified several challenges.

One principal talked about the commitment needed to support online learning in a school:

*Unless you are passionate and believe in it and are willing to overcome barriers it's not going to work. It is hard - timetabling, space, keeping tech up to date, following up on children's work. Takes someone a bit more special to do that. (Mary)*

One principal felt that it was difficult to tailor online learning to the academic ability of children, which contrasted to another principal, who thought that online learning enabled more tailored learning opportunities for students. He also felt that in wholly online situations it would be difficult to maintain the amount of learning that would be necessary for children to succeed:

*...it can be difficult at times when you are talking to a group of kids online and you are not sure of their own academic ability as to the work that you provide and how suitable it is for them. (Bob)*

There was some concern expressed by one principal about the amount of time children were spending on digital devices. *"I have a worry that my students spend too much time actually on the devices (Susan). She*

worried that the increased use of technology was resulting in less practical and activity-based learning for the children. *“I fear that there's not enough practical, i'm losing touch with the practical in the classroom. Yeah the hands on”* (Susan).

The principals felt that children needed to have opportunities to develop social skills and that learning fully online in isolation was not was not a good environment for children:

*How can the children learn to relate to each other when they are online at home sitting on their computers all the time, they need to be in an environment, where they have the opportunities to work together and to socialise and to develop those skills to be able to socialise?* (Susan)

Another principal postulated that online learning would not be able to support local curriculum because of its centralised provision and the diversity of schools that participate:

*You know that you guys are in really interesting places as well. You know online learning is not really going to cover that. It's centralised and its teaching to kids in different schools, you're not going to be talking about the \*\*\*\*\* environment and how that's a big huge part of our curriculum.* (Mary)

However, the same principal noted that, *“We love online learning and it's got lots of potential, as real people”* (Mary), but it needed to be put in perspective as being *“only a tiny part of the education system and what makes valuable learning”* (Mary). With this perspective of what makes valuable learning, the next section explores principals' views on what is important for their learners.

## **4.5 Summary**

This chapter draws on narratives of rural teaching principals' experiences of online collaborative learning in their small primary schools. My initial analysis of the data through a word cloud infographic, highlighted that much of what the principals had to say was centred around children

learning online in schools, although a high importance was placed on face to face learning. Access to the curriculum was significant, as was the importance of community. Teacher collaboration and teacher workload were discussed. The different opportunities rural schools provided, and the challenges and difficulties of rural schools were also key discussion points.

Further iterations of data analysis gave greater depth and insight into the emerging themes. Principals' conversations often referenced the unique nature of the small rural school and its environment, which provides the main context of this study. Throughout the data, reference was made to what was important to learners, and this threads throughout the themes. Reciprocal relationships between school and community were described as a central part of how small rural schools work and were an important factor for the support of the principal, the development of relevant local curriculum, and parental choice and involvement in their children's education.

The principals raised a wide range of issues, many of which stemmed from the stress of high workload and insufficient time and resources to fulfil their complex and demanding role. They admitted sometimes feeling at a disadvantage because of the issues inherent in their role, but also talked about the many benefits and opportunities to be experienced in small rural schools. Many benefits could be gained for principals by being part of a professional group. However, it was important to understand what was needed for successful collaboration, as well as how to identify some of the barriers, to ensure positive and equitable outcomes for everyone. The principals' discussion of their experience with CoLs showed a mixed response.

Success factors and challenges for students in learning online were discussed, along with benefits to learners and an exploration of how the role of the teachers is changing as students are learning more online. Technology, such as quicker broadband access, better infrastructure, and improved access to online tools, is identified by the principals as a driver for change in schools. What the principals had to say centred around what they felt was important for their learners when they were part of online

collaborations. They felt that children benefitted socially, the diverse needs of learners were supported, children had access to a breadth of learning opportunities, and they could develop a range of skills through their collaborative online learning experiences.

In the next chapter I will discuss these findings in relation to the literature reviewed and relevant theories and suggest implications of this research.



## **Chapter Five: Discussion**

### **5.1 Introduction**

This study is an inquiry into the challenges faced by small rural New Zealand primary schools and the opportunities provided to them by online collaboration. I set out to find if rural principals were leading the way and benefiting from virtual learning, and to what extent we might be seeing new ways of teaching and learning online. Does collaborative online learning enable innovative practice and new ways of thinking about the nature of schooling? What are the challenges and potential pitfalls this may bring to schools?

In the previous chapter, I reported on findings from interviews with eight principals of small rural primary schools, who responded to a range of questions about their experience and perspectives on principalship in small rural schools, professional collaboration, online teaching and learning, and the changing nature of schooling. My research question “What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?” aligned to three key themes that were identified through analysis of the data. These themes were related to:

- principals’ challenges and opportunities;
- professional collaboration;
- the nature of online learning.

In this chapter I interpret and discuss the findings in relation to the three key themes. Throughout my discussion I make links to relevant literature to confirm or extend on what is already known, while exploring areas of contradiction that may stand out for scrutiny.

### **5.1 Principals’ challenges and opportunities**

Being a principal of a small rural school can bring both challenges and opportunities for people working within these roles. Most principals interviewed for this study saw themselves as being disadvantaged through a range of factors, such as lack of time, support and resources, and a demanding workload. Principals felt that these factors combined to

effectively exclude them and their schools from accessing opportunities and were a barrier to moving their schools forward strategically or being more creative in their approaches. All principals interviewed raised high workload, and lack of time, access to PLD and support as being a challenge. This was supported widely in the literature (Earl Rinehart, 2017; Stansfield, 2015; Starr & White, 2008; McLean et al, 2014; Preston et al, 2013; Windsor, 2010; Wylie, 2017). That challenges of time, workload and resourcing are similar for many principals in New Zealand, regardless of the type of school they work in, is supported by Wylie (2017), who states that two thirds of all principals in primary and intermediate schools work on average 56 hours or more a week, with 42% reporting high stress levels.

However, it could be argued that the unique nature of rural primary schools, being small, often remote or isolated, and with a smaller economy of scale, creates the conditions where these problems can compound into greater challenges for principals who work in these schools. For example, principals interviewed in this study discussed a range of issues that were related to school staffing; being in rural and remote locations made it difficult to attract staff to provide principal or teacher release time or day relief, or to provide specialised learning support or administrative support. Often these positions are part time or on call, which makes it difficult to attract people to the area, even if there is accommodation available. Paying travel expenses for relievers to come out from town eats into already limited funding resources. Without access to staff, principals' workloads and stress increase, their opportunities to engage in professional learning are limited, and they are less likely to collaborate with other principals (Stansfield, 2015; Starr & White, 2008; McLean et al, 2014; Preston et al, 2013; Windsor, 2010). Wylie's (2017) survey of principals' best sums this up, with 44% of rural school principals saying access to good quality professional learning was an issue, and principals of small rural schools being less likely to be involved in externally facilitated professional learning groups, inquiry projects with other principals, or providing mutual support for other principals.

Other significant challenges for teaching principals are multi-level teaching and getting the right balance between the demands of being a principal and a teacher, which both contribute to an increased workload and a more complex role. The ability to provide a varied curriculum, specialised subjects and extension opportunities for students is challenging in small rural schools. This was reported by the principals interviewed and supported in the literature (Stansfield, 2015; Starr & White, 2008; Stevens & Moffatt, 2003; Roberts, 2010; Windsor, 2010).

Relationships with others outside the school and with the community are critical for rural principals, both in the challenges they bring and in the opportunities they provide. Two of the principals interviewed related that getting to meet and work with others through their role as the school principal was one of the best parts of their job. However, another principal outlined the wide number of agencies that principals were required to communicate with on a regular basis, which added to the workload and complexity of their role. This was supported by Earl Rinehart (2017) who stated that communication with a wide range of people was a significant part of a principal's role and required considerable time and energy.

The principals interviewed considered there to be a reciprocal relationship between community and school. The principals felt that the school was an important part of the community, and in turn the school relied on the community to provide the support it needed. Barley and Beesley (2007) reinforce this view, saying that in their study of successful rural schools the schools and their communities were interdependent. There were closer relationships between principals and students and high expectations of student achievement. This view was illustrated when the principals talked about rural children standing out as being different from children they had taught in town or city schools, how children who had been disaffected in other schools had thrived in their school, and the satisfaction they had in following a child's progress over time and not having to hand them off to a new teacher each year. These statements are all reflective of the closer relationships between children and teachers in small rural primary schools (Barley & Beesley, 2007; Wright, 2003).

The principals affirmed that the local environment and close community connections enabled small rural schools to provide unique, rich and relevant learning experiences, which were important for engaging children. For example, principals discussed the building of an orchard, learning to preserve and cook produce, participation in environmental and sustainability projects, and engaging the community in careers inquiry. There are many opportunities for small rural schools to engage in place-based pedagogy (Windsor, 2010; Wright, 2007), and place based pedagogy has been advocated by Batholomaeus (2013) and Green (2015) as an important approach to sustain and revitalise rural schools and their communities. Children can develop “localised capital” Corbett (2007, p. 783), where they have strengthened ties to the community and a greater understanding of themselves and their local area.

In responding to the challenges of small rural schools, some principals adopt innovative approaches (Starr & White, 2008; Stelmach, 2015), such as collaborating across schools, and partnering with community and organisations, often using technology to enable these innovations (O’Leary, 2015; Windsor, 2010; Wright, 2012). This is discussed further in the next section.

## **5.2 Professional collaboration**

Being part of a professional network is important for principals’ professional and personal support (Cowie & Hipkins, 2009; Mclean et al, 2014; Taylor, 2016). Principals interviewed in this study talked about how important it was for them to maintain connections with their colleagues and how much they enjoyed and valued being part of a professional group. They gave examples of their collaboration through the Rural and Remote Schools Project and the VLN Primary, and the benefits of being able to support each other professionally and to promote social interaction between their students, which for some supported their transitions to high school. Collaborating online, when done well, could help to relieve time and workload issues for principals and extend the curriculum for students. Collaboration between schools enabled principals to get an understanding

of what was happening in other schools, and to compare and benchmark their children's achievement with others.

The principals interviewed in this study described how they planned and taught units of work together, and how they were each responsible for all the children in the Rural and Remote Schools project group, not just the children from their own schools. This type of collaborative practice is illustrated in the literature when Taylor-Patel (2014) discusses effective collaboration as being when all leaders are committed to all learners regardless of which school they belong to. The principals in this study are demonstrating collective efficacy, described by Donohoo (2017) as a belief that together they can make a difference to student learning.

Findings from principals interviewed in this study show that successful collaboration requires:

- a shared understanding on how to work together;
- time, energy and commitment by everyone to collaborate;
- equity in contributions and a clear understanding of what their contribution entails, for example the time necessary to participate and the desired outcomes for learners;
- responsible and organised leaders;
- others who are willing to step up to leadership;
- careful planning and preparation;
- including collaborative activity as a part of school planning not an add on.

This supports the view that a shared purpose based on mutual need and benefit, and clear structures and processes are necessary for effective collaboration (Taskforce on Regulations Affecting School Performance, 2014; Donohoo, 2017; Rincón-Gallardo & Fullan, 2016).

The principals felt that if everyone in their network could collaborate in this way, then the effort they made would work to the advantage of all. However, issues were raised about varying expectations on the quality of planning and standard of children's work, which created uncertainty for how each principal should plan and prepare. Some tensions were

articulated that centrally provided online learning with several other schools from across New Zealand didn't support a locally based curriculum. Discussion amongst principals presented a difference of opinion on whether local curriculum could be accommodated within a national collaboration, if well planned for within an inquiry framework.

Findings indicated that principals thought that Communities of Learning (CoL) could have the potential to support collaboration across schools, but the reality for most of the principals was they were yet to achieve this. The principals had concerns that they didn't have enough time to engage with CoLs; achievement targets were imposed by the Ministry of Education; there was inequity around the professional roles created by CoLs; and the amount of money being spent on CoLs was significant. Some principals thought that the competitive nature of schools was a barrier to collaboration, and that CoLs could be more flexible to enable collaborative groups that were not geographically based. These views are echoed by Wylie (2016) in her findings from a national survey of primary and intermediate principals, which included questions on how CoL policy was being implemented in schools. The challenge of implementing CoLs in the New Zealand education setting is reflected in the literature, that points out that imposed, system driven collaboration is not effective on its own, but requires informal, grass roots collaboration and an understanding of existing networks and relationships to be successful (Rincón-Gallardo & Fullan, 2016; Taylor-Patel, 2014; Daly, 2010; Feys & Davos, 2016).

The principals participating in this study can be described as an online 'Community of Practice' as defined by Wenger (2008), because they collectively share knowledge and practice to achieve a common purpose. Through collaborative interactions and relationships based on trust and reciprocity, these principals leverage both social and professional capital to build the capacity of their learning community (Daly, 2010; Hargreaves & O'Connor, 2017). Their complex social interactions are typical of social network theory, whereby the principals use social capital and collaborate to effect educational change (Daly, 2010). With digital technology as an enabler, these principals and their students are learning and interacting in

networked communities. This is conversant with a connectivism framework, whereby self-organising groups utilise the power of technology and networks to distribute and share knowledge, and learning is considered a process of connecting to nodes on a network, where nodes can be people, communities or information (Siemens, 2005).

### **5.3 The nature of online learning**

The principals interviewed in this study outlined many benefits and issues that they felt were important for their learners within the context of online learning in collaborative school networks. The principals said that children were able to benefit socially, diverse needs of learners were supported, children had greater choice and access to a wide range of learning opportunities, and they were able to develop a range of skills such as key competencies and digital fluency through their collaborative online learning experiences. These social and academic benefits are supported in the literature (Ministry of Education, 2011b; Thomson, 2011). Principals considered that online learning provided students opportunities to become independent learners, to socialise with students from other schools, and to compare themselves academically with other students, which provided good preparation for students in their transition to high school. The literature states that students who are well supported by their family and teachers, and are resilient, confident and independent are more likely to make successful transitions to secondary school (Johnson, 2016; Vincent, 2015; Baills & Rossi, 2001).

Although the principals felt that online learning provided many benefits, they also felt that learning should be blended and not fully online. Blended learning, where students combine parts of their online learning with learning that is in the physical school environment (Barbour, 2015; Staker & Horn, 2015) was noted as being important by all principals in this study. They felt that opportunities to have face to face interactions were socially beneficial to children as well as having opportunities to undertake hands on practical activities, and these wouldn't be achievable in a fully online environment. The principals described how children were very motivated and engaged to participate in the Rural and Remote Schools Project and

looked forward to camp, which is the face to face component of this project. The principals commented on how important it was for the teacher and the students to see each other either physically face to face or in their online classroom. They felt that synchronous visual interactions with real people and the involvement of quality teachers were important for children's academic and social engagement. The principals' views are supported by Cavanaugh, Ferdig and Friedhoff (2017), who emphasise the importance of teachers with strong pedagogical skills and theories of 'social presence' (Borup et al, 2014; Palloff & Pratt, 2008).

Contradictory to the view that synchronous learning was preferable, one principal felt that asynchronous online learning provided a more flexible option for learners and reduced the need to coordinate timetables to facilitate working together across schools. Another principal discussed her use of online tools, such as maths software, to support and individualise learning programmes, which she described as technology effectively becoming the second teacher in the classroom. This raises the importance of making the distinction between online learning platforms and software, where children are being taught by technology (East, 2016) and virtual learning, where children learn together with online teachers in both synchronous and asynchronous environments (Bolstad & Lin, 2009).

The findings of this study raised concerns that principals had of:

- not knowing where children were at with their learning progress when someone else was teaching them;
- difficulty in tailoring learning to each child's needs;
- having enough time to get through the curriculum;
- the amount of time that children were spending using devices;
- ensuring children were engaged and focussed during online classes and when small groups are working independently.

All principals felt that support for online learners was important, and to provide support they would need to ensure they maintained good communication with online teachers, managed the dynamics of students working independently, supported children to develop self-management skills, and provided adult supervision where necessary. Whalley (2016)



supports this view that school-based support is critical to students' success; and strategies such as communication, adult support and supervision, and scaffolding learners to develop independent learning skills are important.

Advances in technology were discussed by principals as being an enabler for schools to connect to one another and to improve online learning through the advantages of new learning tools. Access to and advances in technology reflect the investment successive governments have made in New Zealand's broadband and fibre networks, schools' infrastructure and a managed school network (Roberts, 2014). However, the digital divide was still raised by some principals as a concern regarding the affordability and reliability of rural broadband networks. They felt that their children were unable to learn online from home because, although they might have the internet at home, they didn't have access to use it because it was too expensive for families. This illustrates that the digital divide is still a problem for communities in rural areas (Crowthers et al, 2015).

## **5.4 Tying together the threads**

In answer to my research question, "What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?", I have found that there are many challenges in being a principal in a small rural school in New Zealand, but when principals work collaboratively across schools they are able to relieve some of those challenges and provide benefits for their students and themselves.

Principals can change the educational environment, breaking down the silos of individual schools and working in networked learning communities. Collaborative teaching and learning through digital networks, when done well, enables students to have richer, wider learning and social opportunities, and provides professional support for teachers and principals. The literature supports this view, indicating that when schools are connected through digital networks they can provide new and better ways of learning and extend the curriculum (Stevens, 1998, 2008; Stevens

& Moffat, 2003; Roberts, 2010). When schools collaborate, they move from being closed to open, and from being standalone to networked; and in the process they build capacity in the education system, contributing to the sustainability of small rural schools (Stevens, 1998; Stevens & Stewart, 2005).

The findings of this study show that innovation and change is happening in these schools, as is indicated in the literature, through a learner centred pedagogy, collaborative teaching, changes to schools' organisation, such as timetabling and shared resourcing, and changes in teacher roles (Barbour, 2011b; Barbour, Davis & Wenmoth, 2013; Langley, 2003). This aligns with Bolstad et al. (2012), who examine principles for a future focused education system, with an emphasis on personalised learning, rethinking the roles of learners and teachers, and new ways of engaging schools with the wider community.

The principals interviewed for this study have given a good account of what works well and what provides challenges for them in working together in collaborative online networks. They agreed that successful collaboration required a shared vision, time and energy, planning and leadership. With time and energy being a precious commodity for principals in small rural schools, it can be a challenge for principals to engage with other schools, and so a high level of commitment is needed to build and sustain collaborative networks. Where collaborations work well and provide benefits, this can provide payback for the effort and commitment made. However, making that step is difficult, as indicated by one principal, who said she was unable to teach online because she had to get her own school organised first. There is some investment needed in schools to enable them to put time and energy into participating in collaborative networks.

The Tomorrow's Schools competitive model of education has not been supportive of collaborative practice (Langley, 2009; Wylie, 2012), and the new model of Communities of Learning | Kāhui Ako shows potential to support collaboration but is still in its infancy (Wylie, 2017). Communities of Online Learning, though yet to be developed and implemented, may

provide systemic support for these types of grass roots collaborations, particularly through a future focused approach and effective online pedagogies.

## **5.6 Summary**

In this chapter I have brought together key findings reported by the research participants and supported by the literature to address my research question: “What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?” I have discussed the influence the unique nature of the rural New Zealand school setting has on the work of principals in small rural schools and outlined how working collaboratively in online networks can provide benefits to students and teachers.

## **Chapter Six: Conclusion**

### **6.1 Introduction**

In this chapter I provide a review of this study, raise implications for policy and practice drawn from the findings, and make recommendations for action for both schools and government. I discuss the limitations of this study and make recommendations for further study.

### **6.2 Review of study**

Key findings in this study indicate that being a principal in a small rural New Zealand primary school is both a rewarding and a challenging occupation. Working in often remote and isolated locations, within a small economy of scale and with strong interdependent community relationships, provides the context that creates unique challenges for principals.

Schooling policy and resourcing has a big impact on small rural schools regarding administrative burden on principals and limited resources with which to work. This was evidenced by the principals interviewed, when they discussed challenges that they had with access to PLD, support for special needs, and the wide range of agencies they had to engage with to be able to access support for their school.

Principals in small rural primary schools can feel professionally isolated. They value opportunities to learn and work together. The eight principals in this study all had experience of collaborating online. Accounts of their experiences highlighted a wide range of benefits for both themselves and their students, in providing a wider curriculum, developing digital fluency, reducing professional isolation, and relieving workload.

The principals were able to provide examples of ways of working together that they felt were necessary for successful collaboration and online teaching and learning. In addition, they identified a range of issues they felt were barriers to online collaboration. Tensions were raised between planning for a localised school curriculum and working collaboratively with schools from other areas. However, not all principals held the same views,

and some provided a divergent viewpoint. For example, where one principal saw a challenge in the provision of localised curriculum, another saw an opportunity to collaborate on a bigger picture inquiry and keep a local focus. Differences of opinion were raised around children's learning needs being met through learning online. One principal expressed doubt about the capacity of online learning to cater for personalised learning needs, while another principal felt it was the ideal way to personalise learning for their students. One area that all principals agreed was that learning online was just one part of a child's learning experience, and, although valuable for broadening their opportunities, it is ***blended learning*** that is more important, as it enables a balance of hands on practical learning and opportunities to engage with others socially.

Discussions with principals on the future of schooling focused exclusively on online learning, perhaps due to the influence of recent media coverage of Communities of Online Learning (CoOLs). Principals did not think that online learning should or would replace traditional schooling but would be a growing and accepted part of a child's education in the future. They didn't delve further into envisioning future schooling except to say that it would still require adult support and supervision, and a bricks and mortar venue for learners to gather.

## **6.3 Implications for policy and practice**

This section provides implications for principals, teachers and school communities on how they can move their schools towards learning in a collaborative online environment; and for government on how it can develop policy and provide resourcing to support small rural primary schools.

### **6.3.1 Recommendations to schools**

Although this study has focused on small rural primary schools, the benefits of online collaboration that have been described by the principals interviewed could be applicable to learners in any size school. Where schools are still working in isolated silos, principals and teachers could consider how they can begin collaborative relationships with others

outside the school to extend the learning opportunities for their students and themselves. Lee & Ward (2013) outline steps towards collaboration in learning:

- developing a vision and having a clear educational focus;
- having strong leadership and support of the community;
- normalising the everyday use of digital technology in the classroom;
- providing support and professional learning for teachers;
- monitoring and reviewing progress;
- and understanding that it won't be easy and will take time.

Principals and teachers in schools who are already involved in collaborative learning online could consider how they can maximise their engagement so that potential benefits can be realised for their schools and learners. Some questions to ask, in your school and with your collaborative networks, when reviewing participation in collaborative online learning could be:

- What are the learning outcomes we want for our children? Are we meeting them? Do we need to extend or change them?
- What are the benefits to for us professionally? Is there reciprocity in collaborating with others?
- Have we included our collaborative online learning as part of our schools' strategic goals?
- Have we integrated our collaborative online learning into our curriculum planning?
- Have we scoped our students' needs, and our teaching strengths and weaknesses so that we can provide targeted learning programmes?
- Are our children well supported? What strategies can we put in place to better support them if needed?
- What professional learning and support have we got in place for ourselves and our teachers?
- What outside help do we need from government? How can we advocate for this?

### 6.3.2 Recommendations to government

There are three approaches government should take to support small rural primary schools.

***The first is to tackle the problems of rural primary school principals raised in this study.*** This would strengthen rural communities and rural principalship as a profession. It would enable principals to more easily step out of their own spaces and work with others outside the school. An analogy can be made to 'Maslow's Hierarchy of Needs' (Maslow & Frager, 1987). If children are hungry, cold and uncared for, they are not going to learn; therefore, if principals are overworked and stressed, they are not going to reach up to try anything new or different.

An improvement in staffing and resourcing and a reduction of administrative bureaucracy are needed to relieve the workload and stress of principals. The example one principal in this study gave of having 12 hours funded release to fill in an PLD application form illustrates how obstructive bureaucracy has become, and what a barrier it is to principals accessing resources. To improve staffing entitlement would provide greater equity for small rural schools and address a wide range of concerns: safety and supervision of children, stress and workload of sole charge principals, professional collaboration and support, recruitment and retention in rural and remote areas, lack of access to relievers, and supporting schools through fluctuating roles. This could be achieved by introducing a sliding scale for staffing allocation, lowering the threshold for a second teacher (Lawrence, 2018), or through the provision of a second teacher in all sole charge schools.

Addressing the challenges of rural principalship as outlined in this section could provide principals with the professional status that should be afforded by their role. It would give them time to engage more fully in their profession and enable them to have a collective voice in education that comes truly from their sector. Currently this voice for the rural education sector often arrives second hand from principals who have been in rural schools formerly, or from others like myself who work with principals in rural schools.

Better working conditions and professional status could reduce the revolving doors experienced by some small schools where principals leave because of unrealistic demands and could make principalship of a rural school a worthy professional goal in itself, and not just a stepping stone on a principal's career ladder.

***The second approach is to ensure that new government policy around Communities of Learning | Kāhui Ako, Communities of Online Learning, and the schools funding review is cognisant of the needs of small rural schools and provide guidance and resourcing that support schools to collaborate online.*** Policies should be more flexible around how schools can collaborate, giving more choice to schools on who they work with, what their goals will be, and how benefits to learners are measured. Professional support and development for teaching and learning online should be available for classroom teachers to become confident online teachers and to better support their online learners. This gives recognition that quality teachers are key to learner success. PLD should be focused on understanding the nature of online learning and how children learn online; and that it is about enabling people to connect and learn through digital networks, and not just about technology platforms or software applications.

***Thirdly, the government needs to reduce the digital divide for rural communities, both in schools and in homes.*** Although all rural schools are now connected to a national, managed schools network, the N4L, those that are in more remote areas are still receiving significantly lower bandwidth at only 10Mbps compared to 100Mbps received by other schools (Ministry of Business, Innovation & Employment, 2016). As fibre networks continue to rollout around the country, the disparity grows in rural areas where fibre may never be an option. Although the government is investing in increasing cellular networks, findings from this study show that, although families have access to internet with improved speeds, it is still unaffordable, and children are missing out. The government should support the recommendations of Rural Women New Zealand (2014) to provide subsidies for rural families to meet the additional costs of



broadband and invest in alternative projects and emerging technologies to increase bandwidth to rural areas.

These are just a few recommendations for schools and government on how small rural primary schools and online collaborative learning can be supported. To delve into more detail is outside of the scope of this study and will be addressed in recommendations for further study.

## **6.4 Limitations of this study**

This study has offered a perspective on online collaboration across school networks to support principals of small rural schools in the challenges unique to their work. Throughout the research process, several limitations were evident. My involvement as the researcher and the ePrincipal of the VLN Primary provided the potential for bias in the interpretation of findings and in the validity of data generated. This was discussed in Chapter Three: Research design and methodology. I have taken steps to address bias by declaring my insider position, working reflexively and conscientiously, and applying the research process and methods I have described in Chapter Three to ensure that data is valid, processes are transparent and ethical practice is maintained.

This was a small-scale study undertaken over a short period of time. It included a sample of 8 principals, which is a tiny subset of the much larger number of teaching principals in small rural schools in New Zealand, and therefore it is limited in the generalisations that can be drawn from its findings. However, the rich accounts that were provided by the research participants would enable the reader to transfer findings by making comparisons with their own contexts (Bell, 1999; Lincoln & Guba, 1985; Merriam, 1988). The findings related very closely to similar findings in the literature, and although not generalisable to large numbers could be considered to provide typicality for those in similar contexts (Davidson & Tolich, 2003; Krausse, 2005).

There was limited opportunity to delve further into principals' beliefs about the nature and future of schooling, which required more probing questions, and time that was not available in this small study. To get closer insights in

this area proved to be outside the scope of what was realistically achievable in this study.

## **6.5 Recommendations for further study**

This study has been focused on a small group of principals in small rural schools, who have been collaborating online and found that there are benefits to be gained for working in this way. There are several areas that could be explored further.

There are many principals in small rural schools who are working in professional silos and are not collaborating in ways outlined in this study. Further research across this larger group of principals could identify barriers and enablers to online collaboration. This research focus could be extended to larger schools in different settings to explore the opportunities collaborative online learning provides for a wider range of school settings.

Principals interviewed in this study identified a range of challenges in learning in virtual environments. Further research is needed into online and blended teaching strategies that focus on social engagement and interactivity, online programme development, and assessment.

During my research, I found very little literature that was specific to rural education in the New Zealand setting. Further research into some of the specific challenges raised by principals in this study could quantify the extent and impact of issues on rural principals and assist in providing targeted policies and support that might result in keeping principals in rural schools for longer.

System change is in progress in the New Zealand education setting. Further research into rural principals' aspirations and beliefs about the nature and future of schooling and change would enable them to have a voice in shaping an education system that strengthens and supports rural schools and communities.

## **6.5 Conclusion**

This study provides evidence that online collaboration can help to reduce some of the challenges faced by principals in small rural schools.

Professional and social isolation can be reduced through access to a wider network of colleagues, workload can be shared through collaborative teaching, and students can access a wider curriculum and develop digital literacies and key competencies through participating in online learning.

Some critics could see the challenge of rural principals presented in this study as a reason to close small schools and put children on the bus to town. It is this type of response that silences the small rural community from raising issues that concern them. However, this should not be the case. Rural schools have a vital role to play in strengthening rural communities, and education in a rural school equips our children well for the future. Rural schools should be recognised and supported as a valuable part of the education system and of wider society. Principals who are well supported and collaborate in online communities can be just as connected and provide as many opportunities for their children as those in large urban schools. The solution doesn't lie in thinking narrowly by moving our children out to bigger schools, but in thinking differently by being more flexible, collaborative and smarter in our approach to rural education:

For the first time in history, school size, as measured by students in daily, physical attendance, is no longer a measure of a school's teaching capacity. In an open learning environment, it is the extent to which a school is networked that determines its teaching and learning capacities. (Stevens and Stewart, 2005)

With fast, reliable internet, the small rural school that is open, networked and collaborative can increase its capacity to provide learning opportunities for both students and teachers.

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## Appendices

### Appendix One: Invitation to participate in study

#### Email correspondence:

##### Dear Principals

My name is Rachel Whalley and I am writing to you in my role as a research student at the University of Waikato. This email provides an invitation to participate in a small exploratory research project aimed at **understanding the challenges small rural schools face and how collaborating online might provide benefits to learners, teachers and principals**. You are invited to participate in this study because you are a principal in a small rural primary school who has current experience of collaborating and teaching and learning online through the VLN Primary School. I am seeking to undertake this research study in order to complete my Masters in Education through the University of Waikato. The study is expected to take place between April and June 2017.

If you agree to participate in this study you will be invited to join in a focus group meeting with other principals that will be of no more than one hour duration. In addition you may be invited to participate in an additional individual interview; this will also be of no longer than one hour. These meetings will take place at a time that is agreed by all participating principals, and will be conducted online using Zoom web-conferencing technology.

Please read the Participation Information Sheet attached for more information and if you agree please sign the Consent Form, scan it and return it to [rache65@gmail.com](mailto:rache65@gmail.com).

I would be grateful if you could do this as soon as possible and before [date]

Please don't hesitate to contact me directly if you have any queries about this research.

*Involvement in this research is voluntary, and you are under no compulsion to participate.*



Rachel Whalley  
0276566140



## **Appendix Two: Interview schedule**

### **Collaboration across New Zealand rural primary schools: A virtual learning perspective.**

#### **1. Focus Group Interview**

##### **Welcome and thanks for participating.**

Outline confidentiality and expectation that focus group discussion is confidential between all its participants.

Inform participants that the focus group interview will be recorded and that a transcript will be shared privately and collaboratively to the group, so they can verify they are correct and make any comments.

##### **My main research question is:**

How can collaborating online provide benefits to learners, teachers and principals at small rural primary schools?

##### **Supporting questions:**

- What is the experience of principals with online collaboration across schools?
- What are principals' beliefs about learning online?
- What are some challenges faced by small rural primary schools?
- How does collaborating online affect the challenges that small rural primary schools face?
- What are some of the enablers and barriers to collaboration across small rural primary schools?
- What are some of the enablers and barriers for teaching and learning online in small rural primary schools?
- How do principals think that teaching and learning online may change the nature of schooling in the future?

#### **2. Individual Interviews**

Questions for these interviews will be drawn from key points raised in the focus group interview.

Participants will be reminded of their right to confidentiality and their ability to withdraw up until the analysis of the data.

Participants will be informed that the interview is being recorded and that they will be able to view the transcript to verify for accuracy and make any comments.

**Interviews will be conducted between April & June 2017**

## Appendix Three: Data analysis – coded statements

<div> <div> <div></div> <div>Data Analysis</div> <div>☆</div> <div></div> </div> <div> <div>File</div> <div>Edit</div> <div>View</div> <div>Insert</div> <div>Format</div> <div>Data</div> <div>Tools</div> <div>Add-ons</div> <div>Help</div> <div>All changes saved in Drive</div> </div> </div> <div> <div> <div>100%</div> <div>\$</div> <div>%</div> <div>.0</div> <div>.00</div> <div>123</div> <div>Arial</div> <div>10</div> <div>B</div> <div>I</div> <div></div> <div>A</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>fx</div> <div>4th iteration</div> </div>									
	A	B	C	D	E	F	G	H	I
1	4th iteration								
2	Data Analysis D	Transcript One							
3	Question	Text	Code 1	Code 2			Themes		
4	What is your <i>experience with online collaboration across schools?</i>						Access to the curriculum		
5	Dutchy	lucky	feelings				Developing childrens' skills		
6		neat thing	positive				Being part of a professional group		
7		luck my way in	by chance	lucky to be involved in a 'neat' thing			Unique nature of small rural schools		
8		we went on camp	shared activity	elements of face to face			Nature of online learning		
9		more than that	wider focus				Nature of collaboration		
10		group of people..	group	being part of a wider group					
11		allowed my child	enabler						
12		foreign language	curriculum	access to the curriculum					
13		wouldn't have be	enabler						
14		I can't speak Jap	teacher skill	inability to teach some subjects					
15		we've done all th	opportunities						
16		i couldn't hope to	enabler						
17		small rural enviro	unique context	enabling opportunities for small rural schools					
18		kept in touch with	group	professional communication					
19		extend older chil	curriculum						
20		wouldn't be exter	enabler	extending children's learning					
21	Thar	extra maths	curriculum						
22		above everything	enabler	inability to extend in some areas					
23		approached by a	group						
24		bedagored nicely	positive	encouraged to participate by colleagues					
<div> <div>+</div> <div></div> <div>1 2nd iteration</div> <div>2 3rd iteration</div> <div>1 4th iteration</div> <div>1 5th Iteration</div> <div>8 Themes</div> <div>1 Reorder Themes</div> <div>1 Iss</div> <div></div> <div></div> </div>									

## Appendix Four: Data table of research findings

Theme 1 - Principals' challenges and opportunities			
Sub- themes	Descriptors	Illustrative Quote	Participant Name
<b>Geographic location and school size</b>	Smaller economy of scale	The other challenge as far as rural schools, I reckon is, and that's why VLN has been so good. When you've got a small cohort of Year 8s or Year 7s or Year 6. Just little things like getting a game of netball going, or rugby or whatever. All you need is two or three kids to spit the dummy and you haven't got a game or you need to pull in your Year twos or something, who hardly can catch ball.	Dutchy
	Inability to teach some subjects	I'm not fluent in a lot of these languages	Dutchy
	Inability to extend in some areas	I started with one boy for extra maths he was way above anything we could cope with in the normal classroom	Thar
	Preparing multi level programmes	I just don't have that time to go and get involved in getting something like that done, ready for this group, and ready for that group.	Susan
	PLD difficult to access and expensive	I think the main challenge for us is our access to professional learning is quite difficult. We are talking about a \$200 fare there and back to the mainland plus we need to stay overnight because the airplane doesn't go at certain times. So professional development becomes quite expensive.	Dutchy
	Finding relief staff a barrier to access PLD	It's hard to get to PD from where I am and hard to get relievers. Who do you get? And where do you get them from?	Polo

	Accessing PLD funds is time consuming	I put in application at the end of last year. It was a really rush job because i only had a small amount of time at the end of the year, you know what its like. I get back, ok we'll give you 12 hours to help you to put in a proper application.	Susan
	Bureaucracy a barrier to accessing PLD	I have a junior teacher, recently registered, who needs PL, who would like further PLD. I mean the hoops, the Ministry made us jump through, the whole form, just moving your way around that document whatever type excel, or whatever, was a minefield.	Susan
	Lack access to role modelling from other schools	I guess just lack of role modelling, as far as, I can't just go down the road. There is two little schools on either side of me and there only limited to how much they know.	Dutchy
	Difficult for local schools to support each other because they share similar challenges	You know we're an hour an hour and ten from our nearest town. I can't ring up Bob and say send me a teacher. He's probably in the same boat as me.	Polo
	Missing out on opportunities	I see so many opportunities that either we aren't able to take part in or you know there's excluding factors or things that just make it too damn hard and you know i think that we've just got to speak up for our schools, our staff, our community, our kids, all those sorts of things.	Isabel
<b>Workload and time</b>	Time and workload are challenges	Well i think one of the main things, that everyone would agree, would be like having time to do everything.	Isabel
	Prioritising tasks and accepting a lower standard	In that there is a huge amount of stuff to do, you know you can't do it all to the standard you would like to, so you got to try and work out whats the most important at the time. Knowing that, yeah, its going to get done, but it won't be done to an amazing level.	Bob
	Stresses of time and effort	And i find that, that takes up quite a bit of my time and is very draining and tiresome.	Isabel

	Demanding and complex workload	Its those sorts of things I find and i don't know if its because I'm juggling like 35 million different tasks but I find that thats huge.	Isabel
	Supporting student learning needs takes a lot of time	The learning support part of my job now has over run to a good...way over 50% of what I do in my release time now.	Isabel
	Extremely long hours	This part time Principal, yet full time Principal [laughs] it kind of happens between the hours of between 6 and midnight you know.	Isabel
	Having enough time to work with professionals	So working with professionals, working with organisations, like CYPs, Rangi tamariki, psychologists, those sorts of things that are associated with our kids is very time consuming and we've talked about time you know its that constant balance.	Isabel
	Time a barrier to getting started with collaborations	And you get too busy, and then its finding the contact and person who came and spoke at that previous conference, and then a year passes and you haven't done anything.	Isabel
	Challenges to being strategic	I personally find that strategic time is what goes. Where you actually having time to move the school forward and plan new strategic things for your school. Because you're so busy doing the whole, kind of, just trying to get your admin done and get your teaching done. It's kind of like a disadvantage because you look at Principals that don't have that teaching component,	Mary
	Challenges to being creative	There's nothing i absolutely need to do, everythings ok, but just keeping on top of the day to day stuff and teaching, and i still find that i'm still lacking time to, you know to be creative and move forward with different things.	Mary
	Time needed to collaborate and teach an online class	...and just to have that time. I do not have to put into doing a class. As well.	Susan

<b>Community &amp; role expectations</b>	School is hugely important to the community	The school is such an important thing for them that they all do come onboard.	Bob
	It takes time to gain the full support of the community	Working with a community that is extremely supportive. It's taken seven years to do that but I think they're on my side.	Thar
	Different levels of communication required with community	I think you've got to be able to speak at different levels and you've got to communicate with all your stakeholders really.	Dutchy
	Parents from other areas choose to send children to small rural schools	That parents are choosing to send their children here because of the small nature, because they know we've shifted kids with, who have been below or well below in the past and unfortunately perhaps its becoming a magnet, I'm not quite sure. There is, you know, I'm on the outskirts of Auckland, I'm very close to Waikato, there is quite a degree of choice. I've got a school 8 minutes away and i've got a school about 10 minutes away. So there is that element of parent choice	Isabel
	Being involved in the community is important for childrens learning	What makes valuable learning, is doing it and relating to other people, you know, going out into your community...	Mary
	Community involvement and local environment curriculum important	And you've got to get that real community, or local environment based curriculum. You know that you guys are in really interesting places as well.	Mary
	Local curriculum is successful and engages children	When everything is really successful, it's really locally based. Thats the stuff thats really engaging the kids... Last year we did ....island, then we did ....whaling, then we did jobs and industries; those are the things that are really engaging the kids. And bringing all that in and really trying to get our enviroschools going. So the kids are all off saying i think we should do this, this and the next thing.	Mary
	Principals are an important part of the community	Also the fact that you're in a community so there's never the chance to switch off because no matter what, weekend, whatever, after school, you are still the Principal. So yeah you've always got that in the back of your mind, that, yeah	Bob

		you just you have to watch your Ps & Qs a little bit more, you have to engage with people often that you'd much rather tell where to go and do it in a very polite well mannered way.	
	Expectations from a range of stakeholders	We don't have the time to do what is the expectation are from the community, from the parents, from the Ministry, from the Board.	Polo
	Many roles are expected of the principal	The expectation in a rural remote school, with not just the planning, its looking after the management side of it, and even the governance.	Polo
	Responsibility for all decisions	So in all the decisions do honestly come back down you. The Board chair and fair enough they're there, we have our meetings. But in reality its you that makes the choices for whats going to happen at school.	Polo
	Expectations of principal in the community	...you become part of the community but still have to, you know, 'she is the principal.'	Thar
	Balancing teacher/ principal roles	For me its the balance of being a good teacher because I am the main teacher to my students here in one of our classrooms. And then trying to balance that between being you know, this part time Principal, yet full time Principal	Isabel
<b>Staffing and resources</b>	Not enough funding for learning support	The learning support side of things is certainly, you know when you look at my [? grant] ts \$2000 what would you like me to do with that?	Isabel
	Accept from a limited choice of relievers to relieve workload stress	If you need to get extra staff in you haven't got a pool of people to choose from so you take the devil you that you know, i suppose. And knowing that there is no other choice. So having someone else do something at least will relieve a bit of pressure on you although that can backfire in and you've still got to catch up and sort of back it up later on.	Bob
	Accessing contestable funding	We applied for that teacher led innovation funding, and we didn't get it because we werent' innovative enough. You know that was a real kick in the	Mary

		guts in us, and it was a lot of time, though it was *****stime not ours, to be honest. But you know its kind of made me a bit not that inclined to apply for other funding and things. Cos ***** put a lot of time into that, i don't have a lot of time to put into something I potentially might not get. And ***** didn't have time to do that last one either. And its just like, well it feels like everythings stacked against us, cos we don't have. You know all the things they are bringing in now take hours and hours to do applications for but	
	Access to human resources	Its that constant, extracurricular stuff, like we've talked about, that we're using VLN for now that we don't have access to those resources, in terms of human resources.	Molly
	Recruiting permanent staff in a remote location	For me staffing is constantly an issue, because we are so remote. We were lucky enough to have permanent staffing, probably you Mary, i'm not sure about you Susan. For the first six years here and now i'm battling to get a permanent person, because its not enough hours to justify someone moving out here or driving out here for two hours at a time.	Molly
	Relievers is an expensive option	So i'm working with relievers constantly at the moment and paying exorbitant amounts of travel to people to get them out here.	Molly
	Need to have two staff in U1 schools	NZEI were looking at all U1 schools should have two full time teachers some years ago. It would ease some of our load, wouldn't it.	Molly
	Staffing is a major problem	I'm looking for my third release teacher and i just had my teacher aide give notice at the end of this term. So, yep. I wrote down staffing as one of the big bug bears out here, and i've got one reliever i can call on at the moment.	Susan
<b>Communicating and working with others outside the school</b>	Advocate for your school with other organisations	You know the long list, you know, ERO, STA, everything. [laughs] MoE, I mean, it feels to me like I have to be an advocate and its something I've learnt in the last three years. So that this job is turned me into an advocate, otherwise known as a bitch, because you've got to stand up for your school.	Isabel



	Reliance on others to get your job done	But there's this constant reliance on someone else to also do there job. Whether that be Ministry person or someone else, so then I've done that, and I'm expecting them to do their bit and of course two weeks later, I'm going 'Hey did i ever hear back from them?' and then of course I've got to chase it up. I find myself doing that, kind of little mouse wheel type procedure quite a bit.	Isabel
	Inflexibility of others to work around available hours	And i find the companies or people that refuse to work with me and engage with me in ways that I can. You know like people always want to talk to you during the day, it's like, i can't i've got duty, i've got this, i've got that. Email me. And the amount of people that struggle to engage with me in those ways...	Isabel
	Different ways of working	Do you deal with it then, or do you go actually this is my time. So now i'm starting to, you know just pick my battles and learning to, oh its this parent, it would be better for me if i just quickly reply and say 'see you in the morning lets touch base' or I'll take my 24 hours and actually think about it before I reply. Different ways of working, yeah.	Isabel
<b>Benefits and opportunities</b>	More opportunities in rural schools	I don't feel our children are disadvantaged. I think we get more opportunities because of our isolation, because we are an island school, we're a bit unique. Reluctant to leave as I don't think I would get the opportunities in other places.	Mary
	Double edge of advantage & disadvantage	I always like to call these rural kids, the luckiest unlucky kids. Like, they are lucky in so many aspects, but in other aspects, they have no idea.	Dutchy
	Satisfaction in seeing childrens progress	to be able to watch the progression in their learning over time. Its not a case of do a bit for a year and then hand off. You get to see where they come from, where they're going, and where their next steps are. I get a buzz out of looking back at their results in the past and going Whoa they've come such a long way.	Bob

	Making a positive difference in the lives of young people	The children who have left and gone off to high school and university come back and still want to come in and say hello. It means that you have affected their lives in a positive way.	Thar
	Providing a safe place for children to develop	Helping children whose home lives may not be fabulous but making this a safe place for them to be and to grow.	Thar
	Opportunity to engage with people	Just meeting lots of amazing people, whether its through this establishment as a place of education, or outside the school gate. Or like meeting you lovely people online. You know its making what is a very small place into a large world.	Dutchy
	Pride in community	You might have to change your opinions and have a bit of banter back and forth but i do have an amazing community. If i didn't have that i wouldn't be here	Bob
	Independence and responsibility	I reckon the best thing is that you are your own boss. You know, you might have ERO come around every three years or you might disagree with some of your board or whatever, but in the end the buck stops with you and its actually quite, its a neat job, i love it.	Dutchy
	Enabling children to develop their skills	So in these little schools you can take chances with them, you can develop better skills in them and you can watch them go and like Bob, you've got them here, you move them forward.	Polo
	Freedom to effect change	I find that Principalship in a little rural remote place gives you, or it gives to me the opportunity to make effective change and watch it grow. Like we had a blank canvas. And we've gone from a blank canvas to where we are today and its taken a lot of discipline with the children, a lot of planning and learning for them, and its exciting, and we can do and be different from those urban kids.	Polo

	Small schools more inclusive	i just love seeing some of the kids particularly new kids to our school that have been disaffected or not engaged in the regular school and who have come here and who are allowed to be their quirky self.	Isabel
	Maintain relationships unique to small schools	And my ideal size of school, has totally shifted, you know, because i want to keep that relationship, i want to keep all those things really special. I don't want to loose them in a big school.	Isabel
	Rural kids are unique	So for me it would be the kids. Rural kids are awesome kids	Bob
	Different in many aspects from previous experience	As a Principal in a rural situation I came from South Auckland so I was in amongst all the stars and the lights and the millions and millions of people to a little place thats got about 250 people on a good day. Yes I am remote, yes I am very rural, but you are what you make of it...	Thar
	Rural children are stand out from others	Our kids are really robust, they can tell when the kids that have come from these rural remote schools where we are. Because of the values and the way that they are when they get in there.	Polo
	Unique learning opportunities in a small rural school	You know our building fruit orchards, and doing preserving, and cooking for a term, a whole term making lots and lots of preserves and selling them in town to buy stuff for the classroom. They don't do that stuff in towns, you can't do it.	Polo
	Small schools collaborating	I think that's a real benefit for us. What we are doing here with the VLN, for our little schools, especially for our rural group.	Polo
	Transitions to high school eased by knowing children from similar schools in the wider district	And the transitions to high school, we are quite lucky because we've got *** just up the road and 9 times out of 10, there are kids that have gone the year before or coming up the year after that our kids know already there.	Bob
	Not having to keep up with circles of pedagogical change	But a lot of the things that we're told or they have courses for in Auckland, kind of pass us by. And that has advantages too, its actually quite nice things	Dutchy

		go around in circles and you just stay where you are and actually you're not that badly off.	
	The rural environment	I can sit in my office, i can look out at the hills. They're little tiny hills, not like down south and stuff, but you can watch the turkeys walking across the pheasants or whatever else. Yeah you can be getting quite ? with your paperwork and look out the window and just have space. I think for me quite a big thing, just to relax and chill out. I might not be able to get out for a walk but i can feel like i'm out there.	Bob
	Teachers can collaborate online for their own learning needs	You know it's not really so much the kids online, but we are not really making the most of it for our own...for our own school learning.	Molly
	Online teachers can reduce workload for principals	You know you have those classroom teachers online, that can take some of that load off us. That it certainly eases up me trying to find human resources more and more the children are online for us, they work more independently so therefore I can actually be in the classroom working on something else...	Molly
<b>Theme 2 - Professional collaboration</b>			
<b>Sub- themes</b>	<b>Descriptors</b>	<b>Illustrative Quote</b>	<b>Participant Name</b>
<b>Benefits of being part of a professional group</b>	Being part of a wider group to share experiences	You know just coming together with our rural group, or when i was on governance and stuff like that, having another kind of, more people in your network. Because our networks are quite small.	Mary
	Having professional communication	So for me its kept me in touch with colleagues...	Dutchy

	Being included by other Principals	I was approached by a member of the rural kids group to join. And was badgered into it nicely and since then I have been part of the rural kids group...	Thar
	Professionally engaging	I found being a part of this group stimulating...	Thar
	Understanding each others contexts	...they have so much knowledge from their rural landscapes that they all live in but they also understand where you are coming from...	Thar
	Providing professional support	...everyone has a similar outlook and the same sort of environment that you can bounce those ideas off whenever you sort of need to.	Bob
	Enjoyment in participating	So thoroughly enjoying it and hope we can continue with this kind of Cool relationship.	Thar
	Benchmark and compare childrens' work	We have the Work Worth Mentioning from our rural and remote kids. And we started making a Work Worth Mentioning webs, or Google classroom for our school. But it would be awesome to kind of collaborate across a cluster, you know to have that sort of thing. Good examples of all sorts of work that kids could refer to.	Mary
	Collaborative planning and teaching relieves the workload	I know that Poetry unit Susan did and the novel study and stuff, that was great because, those kids had that work for the term and i wasn't having to plan work for my Year7 and 8s and that was awesome.	Mary
<b>Features of successful collaboration</b>	Develop shared understandings on working together	So yeah, its kind of getting everyone to the same idea ...	Mary
	Everyone has to be involved	Where we sort of had that thing last year we were going to do in Maths, and then we said you know, if someones going to organise it then we want it to be across the board. And then you know one schools, like i don't want to do that..	Mary

	Understand the need to contribute	I haven't done any of this work yet, so i probably need to get involved and do some of that as well.	Molly
	Collaborative programmes are included in a schools programme not as an add on	...that its not something extra. Its like we actually doing it to our own advantage so we're actually using each other to make our job easier.	Mary
	Leadership	Need responsible and organised leader, someone motivated to drive things along. Important to bring new people into the group and get them to step up.	Polo
	Being organised and having good systems in your own school enables collaborations with others	I just find it was ok back in my old school, I'd been there for awhile, i had systems in place. I'm just finding it a real struggle in a new school, which doesn't have systems in place...	Susan
	Collaboration requires planning	To do that we really need that planning don't we so that we say, ok for the year, we are going to be looking at this big topic, big question and this is what you can do to bring to it, and you could do that and that. That's the real big, big jump.	Susan
	Collaboration requires time to prepare	It's that time thing again isn't it where we all have a consistent period of time, at a regular point, where we can meet and i'm probably the worst person for that, because i'm flipping hopeless. But to you know, to be able to collaborate, this sort of area, is really good, but we all need to have a consistent regular time to do so.	Mary
	Taking responsibility for each others children	Being an eteacher, taking classes online and being responsible for this group of Year 7 and 8s.	Polo
	Work with other schools to share local environment and get ideas	Definitely and we're doing like at the moment, we're working on our local, our school environment, making our school more beautiful and making the school how we like it. I think that would be awesome to work with other schools too	Mary

	Collaboration provides an audience for children to share with	So there you'd have an audience, if we were all doing jobs & industries within our area and how the environment effects the jobs and industries, then the students could be doing all the inquiry and study into it and then share it with all the others.	Susan
	Opportunities for projects that are enhanced by sharing with others	So i guess talking to other schools, Do you guys have a technology room? What does it look like? What are the things that work really well for you in your technology room? Oh this is what we have thats really good, i think that could work too eh?	Mary
<b>Challenges of collaborative practice</b>	Differing expectation about quality of planning and childrens work	You kind of have to have, probably expectations of how much time will be allocated for the work, and how much preparation to put into it.	Mary
	Expectations on time for student work has an impact on teachers own preparation	And so One, there's no point in you planning something thats already planned, or Two, its a bit of a worry if you think its planned and you don't plan anything and you've suddenly got to cook something up.	Mary
	Concern about equity of contributions	One to keep it fair, and two, so that you know what time to allocate to your students to complete that work.	Mary
	Uncertainty about how to contribute but know it's an expectation	It took me such a long time because it always felt like it was a bit daunting in the expectation of what we needed to do.	Molly
	Challenge of providing a local curriculum and collaborating with other schools	It makes it tricky because at the moment we're really working on developing our local curriculum and our enviroschools so much and like when i can see what Susan is saying, you know, making links to other schools and things, thats where we're at the moment, is not terribly collaborative.	Mary
	When you are all doing different things it doesn't lend itself to collaboration	But i'm sort on two hands here, because i'm saying it would be great to work more collaboratively, but if you're doing that sort of thing it doesn't really lend itself to collaboration with other schools, because you're not going to really be doing the same things.	Mary

	Bigger picture questions can be collaborative	Although your bigger picture questions are Mary, because you just said then, exactly some of the stuff, that, and i went oh we could be doing that.	Susan
<b>Communities of learning (CoL)</b>	CoL provides access to professional network	For me the great idea of a CoL was actually being with other Principals who weren't just the four cluster Principals, it was a wider group of Principals who had greater ideas.	Thar
	Frustration with imposed Ministry targets over CoLs	...and Polo's right, we had ideas about what we wanted to have as our focus and then those on high came in and send You will focus on	Thar
	Potential of CoL is unrealised	So being part of a CoL on the one hand is great but at the moment ours isn't working.	Thar
	CoLs enable collaboration and learning across the sector	We're in the kind of 21st century at least we are dragging ourself into it. Unfortunately some of our high schools are, you know, somewhere way back in the year dot. So i can see that the collaboration between the cross sector, is, we're all learning.	Isabel
	Competition between schools a barrier to collaboration	I think if you were in an area where you were competing against other schools, to get kids to go to your school, you would struggle. You would have, you wouldn't probably have open conversations.	Bob
	A self selected online community of schools (cool) would be an option	thats probably where your communities of online learning, would be much better, you could pick and choose across the country on who you wanted to have those conversations with	Bob
	Inequity of roles and huge costs involved with CoLs	i've had to voice my concerns at governance level that when an across school teacher comes in, they are earning, equivalent wage to me. And they teach in the classroom, equivalent to me, so i've really put that on the table and said i have a huge issue with this. And when you come to my school you will work and [laughs] we will utilise you because i just, it makes me sick thinking of all this money. I want to make our CoL work because its so much money otherwise and so far we've had benefits.	Isabel



Theme 3 - The nature of online learning			
Sub- themes	Descriptors	Illustrative Quote	Participant Name
<b>What's important for successful online learning</b>	Online learning alone not enough, face to face is important too	But I think that its quite important that we don't just keep it at online learning. Its nice to be able to put a face to **** and be able to talk to her face to face.	Dutchy
	Blended learning preferable but fully online depends on each childs situation	So definitely a blend but individually obviously every kids situation is different. If they are rural, then again on top of that also remote, that creates another set of things whereby it could be entirely appropriate that all their schooling is online.	Isabel
	Support for students who are learning online	And of course I still support the teaching of that. And one of our learning support teacher aides also works with our kids for language as well.	Isabel
	Synchronous visual online interactions important	But the social side, the academic side, seeing each other on the screen through Zoom, really means a lot rather than just typing away.	Thar
	Need real people and quality teachers involved	I think that real person always needs to be there....and I've been absolutely amazed at the quality of some of our teachers.	Dutchy
	Asynchronous online learning provides more flexibility	My idea of online learning is it frees you up to work around some of the things you want to do more and if we could somehow maybe, instead of having it at a set time, if there could be work or something set up that the kids could go on and look at and then get back in touch with you. Rather than it having to be a certain time every week where, I mean, I'd like more flexibility in it, if you know what I mean.	Bob
	Provide safe online learning environment	So we are actually empowering our kids to be able to take that step into that global world in a nice safe platform that we've got with Zoom and learning as they all do when they first come in, is about cybersafety.	Polo

	Online learning has to be interactive	I think its quite exciting but i also think IT can be, gosh its very easy to stick a person in front of a screen and let them blob out. I think its got to be interactive,	Dutchy
	Adult supervision of children learning online is important	Our parents both work on the land, so whose going to be at home supervising the children. I think they will still be sent to a building like school, where there will be an adult there supervising them, where they can be fed and watered and go to the toilet in safety. Cos our kids would be out hunting, shooting and fishing instead of sitting at home on their computers.	Thar
	Communication with online teachers important	I don't hear that often from the teachers about it. It might be a whole semester before i hear that they might have been playing, for all i know they could be playing games, and i find out that they didn't attend or something, not that that's happened. But.	Susan
	Group size and dynamics is important for supervising online learners	My kids are in groups of two, or by themselves seem to be fine but my VLN kids where theres four of them, they can't really be left to their own devices, not VLN, my rural kids, where theres four of them, they get a bit silly. That does create extra issues as well, because then you've got to have someone supervising those guys and then thats me.	Mary
	Online tools supports individual learning programmes	So like more and more we're going to utilise those online tools to support our learners and to create individual learning programmes.	Susan
	Self management is important for successful online learning	You need to have those key competencies, that self management otherwise its too easy to leave it and not do it. And thats the joy of having a teacher in the room, you remind those kids when they are losing focus, or you getting up and doing something else.	Bob
<b>Role of the teacher</b>	Online learning frees up teachers time	...some of the demands of the paper work, while the kids are participating in a classroom that i'm just sitting there really being the caregiver i suppose and being able to do some of my management stuff, while they're online.	Molly

	Change of teacher role	I find the challenge is when they are online, they are individuals, or maybe two students and they are away from me, and I actually have no idea how well they are participating, and what they are actually learning and getting from it.	Susan
	Teachers digital skills affect participation	I think that's been a big thing for me too was getting me up there with - using the technology thats there, being an eteacher, taking classes online. / We haven't done much more because i don't know how to use the computer.	Polo
	Technology takes on the role of the second teacher	And i do, sadly, rely on the second teacher, like Maths Buddy ... and sometimes i find my planning is more catching up and seeing where they've achieved and what they might need more work on and then resetting another task for them.	Susan
	Online PLD would work for some but not all teachers	I can see there being options for PLD available for teachers and Principals potentially online and i can see that will work for some of us. Particularly some of us that can't get out of the classroom or can't get relievers or those sorts of things. Or you are remote and travel is a huge issue. So i can see that would be a plus, but thats not how a lot of people would like to learn, so i know that would be deeply unpopular with many.	Isabel
<b>Role of technology</b>	Enables us to communicate all the time	I think that, the whole technology thing is, is both good and bad because we are very um. People are able to connect with us all the time, and so if its now going to become this you get an email from a parent, lets say at 10 o'clock at night. Do you deal with it then, or do you go actually this is my time.	Isabel
	Potential for future change	You know i don't think we realise it but the technology we've got at the moment is still fairly, its great but its not, not where it will be in a few years time. I've seen over these last six years the development with even this, like having Zoom instead of trying to get the computer going and having all sorts of botch ups and what have you.	Dutchy

	Broadband has been a driver for change	with the advent of quicker broadband and what have you, we've made a shift in education that perhaps five years ago we didn't even think would happen.	Dutchy
	Internet access is not accessible to all and infrastructure is unreliable	There is talk that we will have all sorts of beautiful wiring in the very near future, but who know when that will be. For instance last week somebody up in *** drove his truck into the power pole therefore all the telephones were out for three days. Now if that still happens in this day and age, you know what chance have we got for being online, permanently with these kiddies.	Thar
	Online tools are becoming similar across schools and between the online and face to face classrooms	Its so really good that they've started using Google Classroom in most of those classes. Because we work with Google classroom so thats kind of handy. And its good because what i'm gathering most of the high schools use Google classroom.	Molly
	Better infrastructure improves access to online learning tools	...i think we are all not aren't we upgraded and we're all on N4L or good wifi and quick. So like more and more we're going to utilise those online tools...	Molly
	Home internet access	Can't give children any work from home that involves internet as they don't have access, families have internet but it is capped and expensive and gets used by the adults in the house first.	Polo
<b>Benefits for learners</b>	Providing a wider curriculum	But yeah, giving the kids opportunities for all the other things, you know the programming and the extension maths and mandarin and french and things that we haven't got access to here.	Mary
	Enabling opportunities for small schools	We've done all these things that I couldn't possibly hope to do in a small rural environment.	Dutchy
	Access through online programmes	So its having the online availability for extra classes particularly for the development of our kids...	Bob

	Access to experienced teachers	And you know that's when I look to an online type of environment, a fresh teacher, great, working at presumably an area of their expertise. You know again that win win for our kids there.	Isabel
	Access to the wider world	...so we are making these responsible students out there in the global world.	Polo
	Participation in a range of online projects	So there has always been lots of different ways that students that I have taught have connected with other students. Either in projects that we have created ourselves sort of like PenPal buddies or blog buddies, those sorts of things.	Isabel
	Making learning affordable for parents	You know, it means a lot to the parents as well, that we can supply such things externally for the kiddies, where they themselves, might not be able to afford it.	Thar
	Enabling children to have choices in their learning	they can also go away and have a language that they chose, that they want to invest their time in, you know or its or another class. And its something sort of special for them as well. Its something that we either can't offer, or can't offer at that level	Isabel
	Providing access to professional development	I would rather have PD like online, some PD I would do some things online, which is more beneficial to me, than travelling all the way into town.	Polo
	Children are able to socialise and make friends with others in similar schools from diverse areas	I know my kids being able to mix with kids from similar size schools but such a diverse region, really enjoy it and a couple of them have made some pretty good friends in the past and I know they have kept in touch with.	Bob
	Bringing children together to learn	Mindful that we had all these Year 7 & 8s scattered around New Zealand and we could bring them in so they could be learning together	Polo

	Being able to see each other means a lot for social interaction and for learning	But the social side, the academic side, seeing each other on the screen through Zoom, really means a lot rather than just typing away.	Thar
	Learning with other children from similar small schools	They are learning in a classroom where they all know, they are all from little schools. I think thats a real benefit for us.	Polo
	Face to face learning is important	I love the fact that they can have this brilliant face to face learning which I can personalise and individualise for and they can also go away and have a language that they chose, that they want to invest their time in, you know or its or another class.	Isabel
	Having real people to interact with is important	I think Polo is right, a balance between a bit of online learning and that influence of a real person is really quite important.	Polo
	Children need to have opportunities to develop social skills	How can the children learn to relate to each other when they are online at home sitting on their computers all the time, they need to be in an environment, where they have the opportunities to work together and to socialise and to develop those skills to be able to socialise.	Susan
	Different children can experience similar benefits	Each camp has been a different lot of kids but they're getting the same benefits of learning online with our eteachers	Polo
	Providing for diverse learners age and skill levels	When you've got a smaller class and you've got huge varied age range and therefore skill needs and those sorts of things.	Bob
	Able to tailor learning to each student	We're really focused and really targeted on the individual	Isabel
	How children learn is important	It is important to talk about how children like to learn, and there is definitely some children that need solitude and some that need being together and usually most of them do require that teacher input.	Isabel

	Both online and face to face provide benefits	So I can see a benefit for both, I can see it like a win win situation is ultimately what i'm looking for, for my students.	Isabel
	Online learning is engaging, different and special	From my point of view, its' really engaging the children, from them doing their normal everyday work and suddenly they've got online learning where they have access to the laptops etc and the rest of the school, you know, have to do something else.	Thar
	Children expect to be able to participate in online learning	So they knew about all the excitement and hype that goes with going on camp and that really made them work hard for the next two years.	Thar
	Children stay at a school to participate in online learning	Some of the children even stayed with us, because they were dairy farming, their family stayed with us, so the children could work throughout the two years and then go to camp and then leave us.	Thar
	Online learning is valued by parents	You know, it means a lot to the parents as well, that we can supply such things externally for the kiddies, where they themselves, might not be able to afford it.	Thar
	Online learning can supplement the curriculum	I like to think that the online could be used to either supplement, where you know for example as a primary teacher we try and be good and everything don't we and you know sometimes you get up to those stages in Maths.	Isabel
	Good preparation for students going to high school	It's really good preparation for the kids going to high school. Because in a wee school its hard for them to have practice at timetabling issues, having other teachers, and having deadlines and things like that. So thats really good for them to have different classes during the week that they need to go out to.	Mary
	Develop key competencies such as responsibility & time management	It makes them more aware of their time management so we are making these responsible students out there in the global world.	Polo
	Capable of real world learning and instant access through technology	I think i enjoy students learning in the real world and like Bob said its that moment of now, they access it, they want it now, we want it now, everybody	Polo

		wants it now. That the kids being able to use these capabilities and the technology gives them the power.	
	Develop independent skills	They can go away and do it by themselves, so we are actually empowering our kids to be able to take that step into that global world...	Polo
	Learning to be digitally fluent	... learning as they all do when they first come in, is about cybersafety. How to keep safe, what to look out for, and how to use it wisely.	Polo
	Active in developing their learning with others	And I like the idea that the kids learning, learning together, you know coconstructive learning where they are learning with an experienced teacher...	Molly
	Working well with children from other kinds of schools	But then again when we get into the languages, and there is the bigger schools, the kids still work good with them ...	Polo
	Understand expectations of learning online	...they know what the expectation is and how to behave in that classroom and I think its all good grounding.	Polo
	Develop skills over time	Start them off early and let them build up and go. And we've seen it with one of our students you know they just excel as they get older.	Polo
	Learning to exercise choice	As a Year 8 they are quite capable of making those choices.	Polo
	Teachers believe if students had complete freedom of choice they would stay at home to learn or be out on the land instead of learning	My kids would love to stay at home everyday could do their lessons/ Our kids would be out hunting, shooting and fishing instead of sitting home on their computers	Polo
	Develop different skills of visual literacy, learning by watching and doing	And i look at it now, once upon a time, the kids would Google to find out how to do something, no that too old now, they'll Youtube it and get someone to actually show them. In that way the different learning skills come into play, they can actually see someone do something rather than actually read it. So	Bob



		for my guys who struggle to read, they can learn to do something by actually watching and listening.	
	Develop range of key competencies	And the sort of key competency stuff around organising themselves and making sure they've got their notebooks, making sure they know which room they are going to, what time it is and how to sign in and all that sort of stuff as much as anything else.	Mary
	Develop technology skills	One of my girls went to ***high school*** last year and she was well advanced technologically in Google classroom etc and that was purely from VLN.	Molly
	Have a head start at highschool	When i interviewed my kids last year as part of my sabbatical, my year 9 & 10s, one of the comments was, one of my questions was. Do you think you are ahead of any of the kids in your class when you went high school? And one of the comments was yes thanks to some of the VLN classes. So that was real cool.	Mary
	Ability to compare themselves with other students provides motivation to do better	Well the big thing for me was for the students initially to see other childrens work and quality of work, and what could be done around NZ. Because when you are in a very small, isolated school, and you happen to have one child at a particular level, being able to have that sort of impetus to push them to do a little bit more, to add a little bit more value to their work. That was very important for me.	Susan
<b>Challenges of online learning</b>	Commitment needed	They haven't got the extra bit of drive it takes to do it. Unless you are passionate and believe in it, and are willing to overcome barriers it's not going to work. It is hard - timetabling, space, keeping tech up to date, following up on children's work. Takes someone a bit more special to do that.	Mary
	Can be difficult to tailor online learning to academic ability	Probably one of my things with the online learning is to make sure that it can target the specific needs of our kids, especially in terms of their ability. I would	Bob

		say it can be difficult at times when you are talking to a group of kids online and you are not sure of their own academic ability as to the work that you provide and how suitable it is for them.	
	Difficult to maintain the amount of learning children need	I don't think the kids themselves, or us adults, would be able to maintain the amount of learning we would do if it was just reliant on being online. So for that reason i think its get that balance.	Bob
	Concern about the amount of time children spend on devices	I have a worry that my students spend too much time actually on the devices.	Susan
	Concerns that increased use of technology results in less practical activity	I fear that there's not enough practical, i'm losing touch with the practical in the classroom. Yeah the hands on.	Susan
	Online learning won't cover local curriculum	And you've got to get that real community, or local environment based curriculum. You know that you guys are in really interesting places as well. You know online learning is not really going to cover that. It's centralised and its teaching to kids in different schools, you're not going to be talking about the ***** environment and how thats a big huge part of our curriculum.	Mary
	Potential of online learning a small part of the whole education system	We love online learning and its got lots of potential, as real people; but we definitely don't want to see the whole government's idea where everyone's sitting there in front of the computer logged in all day. Because thats only a tiny part of the education system and what makes valuable learning...	Mary

## **Appendix Five: Information and consent forms**

### **Participant Information Sheet**

**5th May 2017**

### **Collaboration across New Zealand rural primary schools: A virtual learning perspective.**

#### **An Invitation:**

My name is Rachel Whalley and I am writing to you in my role as a research student at the University of Waikato.

You are invited to participate in a small exploratory research project aimed at **understanding the challenges small rural schools face and how collaborating online might provide benefits to learners, teachers and principals**. You are invited to participate in this study because you are a principal in a small rural primary school who has current experience of collaborating and teaching and learning online through the VLN Primary School. I am seeking to undertake this research study in order to complete my Masters in Education through the University of Waikato. The study is expected to take place between April and June 2017.

If you agree to participate in this study you will be requested to join in a focus group meeting with other principals that will be of no more than one hour duration. In addition you may be invited to participate in an additional individual interview; this will also be of no longer than one hour. These meetings will take place at a time that is agreed by all participating principals, and will be conducted online using Zoom web-conferencing technology.

Please note that participation is completely voluntary and there will be no adverse consequences for you or your school if you decide not to participate in this research.

You will be able to withdraw from the study at any time prior to the analysis of data collected in July 2017.

#### **What is the purpose of this research?**

##### **My main research question is:**

What are the challenges small rural schools face and how can collaborating online provide benefits to learners, teachers and principals?

##### **Supporting questions:**

- What is the experience of teachers/principals with online collaboration across schools?
- What are their beliefs about learning online?
- What are some of the enablers and barriers to collaboration across schools?

- What are some of the enablers and barriers for teaching and learning online?
- How do teachers/principals think that teaching and learning online may change the nature of schooling in the future?

Research findings will inform policy makers on current practice in collaborative online learning across schools and how we can realise the potential benefits of virtual learning for students, teachers and school communities with the New Zealand educational setting. Schools (teachers, principals and Boards of Trustees), who are involved in collaborative online learning might be interested in the findings of this research for self-review and school improvement purposes; and schools that are not yet involved may be interested to see the possibilities and to learn from experiences of those who have pioneered the space.

## **How was I identified and why am I being invited to participate in this research?**

You were identified through the VLN Primary School as a principal of a small rural primary school who is currently participating in online collaborative practice.

## **What will happen in this research?**

You will participate in a focus group interview online with other Principals. You may also be invited to participate in an individual interview online.

All interviews will be audio recorded and notes taken. A transcript of all interviews will be made available to participants for further verification and comment before the commencement of data analysis. For participants in the group interview the transcript will be made available to all through a shared Google Doc. so that the group can provide collective feedback. Participants who are individually interviewed will have a copy of their interview transcript emailed to them for verification and comments.

These interviews are expected to take place between May and June 2017. Data collected in the course of this research will be used to write a thesis, in partial completion of a Masters degree through the University of Waikato. Information from the thesis may also be included in other scholarly publications and/or presentations.

## **What are the discomforts and risks?**

Hopefully discomforts and risks will be minimal for you. One possible risk might be that you feel uncomfortable expressing yourself openly in a group of principals. You may also feel uncomfortable with the researcher being a professional colleague. You may be concerned about your privacy and the confidentiality of the data you provide.

### **How will these discomforts and risks be alleviated?**

Participants in the focus group session will be encouraged to speak openly, and confidentially within the group. As a participant in the focus group, you will be expected to respect the confidentiality of others within the focus group.

I will aim to keep a professional separation from my role as researcher and that of your professional colleague. Every effort will be made to ensure confidentiality and security of data (*see Privacy below*).

### **What are the benefits?**

You will be contributing to a body of knowledge that will inform schools and policy makers on current practice in collaborative online learning. Schools who are involved in collaborative online learning might be interested in the findings of this research for self-review and school improvement purposes; and schools that are not yet involved may be interested to see the possibilities and to learn from experiences of those who have pioneered the space.

### **How will my privacy be protected?**

All reports, academic papers and presentations that are written as a result of this research will keep personal details of you and your school confidential.

Pseudonyms will be used for the schools and participants from whom data are collected. In any reporting of the data, all efforts will be made to maintain the confidentiality of all participants. While every effort will be made to ensure confidentiality, this can not be guaranteed.

All non-identifying data used for publication will be securely kept for at least five years, consistent with agreements made under section 9(4)(a) of the University's Ethical Conduct in Human Research and Related Activities Regulations 2008 and destroyed after five years.

### **What are the costs of participating in this research?**

The costs of participating are the time it takes to read and complete the participation information and consent form, participate in the focus group interview, read and check the transcript, and for some to participate in a second individual interview. Each interview will be no more than one hour duration.

### **How do I agree to participate in this research?**

Please sign and complete the attached consent form, scan it and return it to Rachel Whalley [rache65@gmail.com](mailto:rache65@gmail.com)

### **Will I receive feedback on the results of this research?**

You will receive copies of the research report and any publication or conference presentations pertaining to the reporting of the study.

### **What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to Rachel Whalley [rache65@gmail.com](mailto:rache65@gmail.com) 027 6566140

You may contact my supervisor Dr Dianne Forbes, Senior Lecturer, Te Hononga School of Curriculum and Pedagogy, University of Waikato  
[dianne.forbes@waikato.ac.nz](mailto:dianne.forbes@waikato.ac.nz) (07)8384466, ext 7844

### **Whom do I contact for further information about this research?**

Please keep this Information Sheet and a copy of the Consent Form for your future reference. Contact Rachel Whalley or Dr Dianne Forbes (information above).

Approved by the Faculty of Education Research Ethics Committee at the University of Waikato 20th April 2017 [Reference FEDU 028.17]

# Consent Form

## Collaboration across New Zealand rural primary schools: A virtual learning perspective.

**Researcher:** Rachel Whalley

- I have read and understood the information provided about this research project in the Information Sheet [5th May 2017].
- I have had an opportunity to ask questions and to have them answered.
- I understand that my identity and that of my school will be kept anonymous and any information provided will be kept confidential as far as possible.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection (August 2017), without being disadvantaged in any way. With the exception that data that is collected as part of the focus group interview cannot be withdrawn.
- If I withdraw, I understand that all relevant information will be destroyed.
- I agree to take part in this research.

Participant's signature:

Participant's name:

Participant's Contact Details:

Date:

Approved by the Faculty of Education Research Ethics Committee at the University of Waikato [20th April 2017] [Reference number FEDU 028.17]

*Note: The Participant should retain a copy of this form.*